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Consolidated Annual Report

March 1, 2018

Southwest Florida
Water Management District

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Consolidated Annual Report

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Reservations List and Schedule ..... Doug Leeper
Chapter 3. MFL/Water Quality Grade for Projects ..... Tamera McBride, Michael Hancock
Chapter 4. Annual Five-Year Capital Improvements Plan ..... Mike Cacioppo, Andrea Shamblin
Chapter 5. Alternative Water Supplies Report ..... Anthony Andrade
Chapter 6. Five-Year Water Resources Development Work Program ..... John Ferguson
Chapter 7. Polk Regional Water Cooperative Status Report ..... Joseph Quinn
Chapter 8. Florida Forever Work Plan .....Cheryl Hill
Chapter 9. Mitigation Donation Annual Report..... Michelle Hopkins
Chapter 10. 2018-2022 Strategic Plan (updated February 2018) and the
Annual Work Plan Report.....Trisha Neasman

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Water Management District

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Executive Summary

Section 373.036, F.S., requires the water management districts to prepare a "Consolidated Water Management District Annual Report" consisting of several reporting documents that had historically been submitted separately. The legislation requires the consolidated report to be submitted by March 1 of each year to the Governor, DEP, the President of the Senate and the Speaker of the House of Representatives. In addition, copies must be provided, " . . . to the chairs of all legislative committees having substantive or fiscal jurisdiction over the districts and the governing body of each county in the district having jurisdiction or deriving any funds for operations of the district. Copies of the consolidated report must be made available to the public, either in printed or electronic format."

This consolidated report is a significant communication tool for the District. The report's components were formerly individually distributed at various times of the year. The consolidation results in streamlining the reporting documents in one package. It also allows greater efficiency in comparing different reporting mechanisms.

Descriptions and highlights from the chapters that make up the 2018 Consolidated Annual Report follow.

The Water Management District Performance Measures Annual Report consists of 14 performance measures that measure the District's progress in implementing activities related to its core areas of responsibility: Water Supply, Flood Protection, Water Quality and Natural Systems. Noteworthy highlights in this report include a decline in uniform residential per capita water use, from 76 mgd in 2008 to 69 mgd in 2016. The percentage of wastewater reused has continued to increase, reaching 55 percent in 2016. Since 2003, a total of 39.8 mgd of water supply has been made available through the water resource development component of the District's Regional Water Supply Plan. The percentage of surface water supply sources for which water quality fully attains the designated use has been at or near 100 percent for the past eight years. Finally, approval of management plans for all five first-magnitude springs was a major accomplishment. However, significant work remains to implement plan recommendations.

The Minimum Flows and Levels (MFLs) Annual Priority List and Schedule (DEP approval pending) The District's expenditures for MFLs adoption have changed from approximately $1 million in fiscal year 1998 to a peak of $4.9 million in 2009 and $1.6 million in 2017. As of fiscal year 2017, 203 MFLs, including 29 that have been reevaluated and revised, as necessary, and those for all five Outstanding Florida Springs within the District and one water reservation, have been adopted. By the end of 2027, 23 new MFLs and one new reservation are scheduled for adoption, and 73 existing MFLs are scheduled for reevaluation.

The Minimum Flows and Levels/Water Quality Grade for Projects Report satisfies new reporting called for in Section 373.036(7)(b)9, F.S. The report contains grades for each watershed, water body or water segment expected to be impacted by a project listed in the Five-Year Water Resource Development Work Program. Two grades are provided: 1) a grade that reflects the severity of a water quality impairment and 2) a grade that represents the level of violation of an adopted minimum flow or minimum level. A total of 98 projects from the Work Program are listed with the corresponding impacted watershed, water body or water segment, the water quality impairment grade and the minimum flow or level grade.

The Annual Five-Year Capital Improvements Plan includes projected revenues and expenditures for planned improvements for FY2017-18 through FY2021-22. Some of the major highlights for FY2017-18 include:

Research, Data Collection, Analysis and Monitoring:

- $565,659 budgeted for coring, drilling, testing and construction of monitor wells at Regional Observation and Monitor-well Program (ROMP) sites and special project sites within the Central Florida Water Initiative (CFWI) region.

Land Acquisition:

- $11 million budgeted for land acquisition under the Florida Forever program. These funds represent $4.3 million in prior year appropriations from the Florida Forever Trust Fund (FFTF) and $6.9 million generated from the sale of land or real estate interests.

Facilities Construction and Major Renovation:

- $759,100 budgeted for Districtwide roof and heating, ventilation and air conditioning (HVAC) replacement, facility renovation and pavement projects.

Works:

- $600,000 budgeted for refurbishments to District-owned major flood control gates, including removal, sandblasting, repairs and refinishing.

- $250,000 budgeted for the Thirteen-Mile Run Structure System Replacement project, which will replace eight District-owned, wooden board water conservation structures within the Thirteen-Mile Run watershed, located in Hillsborough County.

The Alternative Water Supplies Annual Report describes alternative water supply projects funded, as well as the quantity of new water to be created as a result of these projects. The report also accounts for other funding sources, such as grants or the use of District lands or facilities to implement regional water supply plans. Fiscal year 2018 marks the 32nd year of District alternative water supply funding, which to date has resulted in the funding of 369 reclaimed water projects that are anticipated to make available more than 245 mgd of capacity. In fiscal year 2018 alone, the District has budgeted more than $40 million for alternative water supply projects forecasted to provide more than 57 mgd of water supply. In addition to funding alternative source infrastructure, the District continues to participate in studies and research with utilities and entities such as the Water Environment and Reuse Foundation. The scientific substantiation of alternative water sources increases the District's confidence in meeting its mission to find and maintain adequate and ecologically sustainable resources.

The Five-Year Water Resource Development Work Program describes the District's implementation strategy for the Water Resource Development component of the District’s 2015 Regional Water Supply Plan. This 17th edition of the Work Program covers the period from fiscal year 2018 through 2022. The Work Program is a comprehensive discussion of data collection and analyses activities and more narrowly defined “projects” that the District is financially and technically undertaking to enhance the water available to meet projected demands. To meet Subsection 373.536(6) F.S., the Work Program includes the anticipated five-year funding for Water Supply Development Assistance projects that are developed by cooperating water providers and qualify for District financial assistance,

and an appendix of projects that help to implement Basin Management Action Plans. The Work Program shows that, in fiscal year 2018, the District has allocated approximately $29.9 million for water resource development data collection and analysis activities, $14.3 million for water resource development projects and $35.3 million for water supply development assistance. The future funding needs for water supply development assistance are dependent on cooperator requests but could potentially increase over the next five years as more conservation, reuse, regional interconnect, and brackish groundwater projects are developed.

The Polk Regional Water Cooperative Status Report provides status of Polk Regional Water Cooperative projects receiving priority state funding. For this inaugural 2017 report, the Cooperative and its members have identified 27 total projects, with 18 prioritized for requested FY2018-19 state funding. A total of $45.4 million would be required to implement all 27 projects, with $32.5 million committed in local member government funding and $2 million committed in District funding for these projects. The remaining $10.8 million for the 18 priority projects is being requested from the state and their implementation is subject to approval of state funding for the FY2018-19 funding period.

The Florida Forever Work Plan In 2008, the Florida Legislature reauthorized the Florida Forever program. The reauthorized Florida Forever Act continues Florida's successful land acquisition initiative that has included the Save Our Rivers and Preservation 2000 programs, providing funding to state agencies, water management districts and local governments. Florida Forever funds allocated to the water management districts are used for land acquisition (including acquisition of less-than-fee interests), water resource development and water body restoration. Over the life of the program, at least 50 percent of the funds allocated to each water management district must be used for land acquisition.

As required by Section 373.199(7), F.S., the District is required to file an annual update of its Florida Forever Work Plan. The Work Plan identifies conservation lands, lands necessary for water resource development projects and waterbody restoration projects that meet acquisition criteria outlined in the Florida Forever Act (259.105, F.S.). No modifications have been made to the 2018 Work Plan, other than updating acres, owned, managed and surplused, and funds budgeted.

The Mitigation Donation Annual Report identifies all cash donations, if any, accepted during the preceding fiscal year for wetland mitigation purposes. Similar to last year, there were no donations received.

The 2018- 2022 Strategic Plan (updated February 2018), and the 2018 Strategic Plan Annual Work Plan The Strategic Plan is the guiding document for the District, identifying targets and how success will be achieved and measured. The plan identifies 11 Districtwide strategic initiatives, including regional water supply planning, alternative water supplies, reclaimed water, water conservation, water quality assessment and planning, water quality maintenance and improvement, minimum flows and levels establishment and recovery, natural systems conservation and restoration, flood protection maintenance and improvement, floodplain management and emergency flood response and 37 regional priorities/objectives. The plan has a five-year time horizon, and is updated on an annual basis. Significant updates to the plan were made for 2018.

The Strategic Plan Annual Work Plan details progress on efforts implementing priorities and objectives of the Strategic Plan. Notable accomplishments for 2017 include the Springs Coast Steering Committee's approval of the Chassahowitzka, Homosassa and Weeki Wachee SWIM plans. The Northern region also experienced (2016 – latest data) an increase in the number of utilities not meeting the regulatory compliance per capita of 150 gallons per capita per day, from two to five. This change is attributed to low rainfall. In the Tampa Bay region, the recent (2016) MFL status assessment indicated that MFLs for 7 of 7 groundwater levels, 27 of 41 wetlands, 1 of 2 river segments, 2 of 2 springs, 1 of 3 estuaries and 42 of 72 lakes within the Northern Tampa Bay Water Use Caution Area are currently met. This assessment also documented continued hydrologic recovery for 2 lakes and 6 wetlands. For the Dover/Plant City Water Use Caution Area, the District has completed the installation of 762 of the 908 automatic meter devices targeted for agricultural withdrawal points, and installation/reimbursement for 501 of the 566 flow meters for unmetered sites. The goal is to complete the installations by 2018. In the Heartland region, the District completed the TECO Southwest Polk Power Station Reclaimed Water Interconnects to cities of Lakeland and Mulberry and Polk County in December 2017. The projected benefits are 8 to 9 mgd in 2017, 10 mgd in 2025 and 17 mgd by 2035. Finally, there are three ongoing ecosystem/environmental restoration projects connected with the Charlotte Harbor and Sarasota Bay watersheds.

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2017 Water Management District Performance Measures Annual Report

Southwest Florida Water Management District

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Water Management Performance Measures

Government, like any meaningful enterprise, needs to measure the results of its actions to ensure that services provided are effective and efficient. The purpose of any measurement process must be aimed at accomplishing sound resource management while improving accountability. If measures are successfully developed, and communicated, they can be expected to:

- Provide better information for decision making;
- Document to taxpayers their dollars are being spent wisely;
- Spot potential problems before they become crises; and
- Coordinate effective resource management among agencies.

The water management districts and the DEP jointly developed these performance measures. They are organized around the four primary AORs of the districts: Water Supply, Water Quality, Natural Systems and Flood Protection. Base years, assumptions and data sources for each measure were mutually agreed upon as one means of achieving consistency among districts. The time frames associated with each measure may vary, based upon the availability of data. A number of measures are provided for the areas of responsibility. The concept is that a few key measures for each of the District's responsibilities will be tracked over time to identify trends as they are reported annually. These measures will continue to be refined and coordinated with other agencies and the public, and periodic assessments will be necessary to ensure a measuring system that provides true accountability.

Summary of Water Management Performance Measures

Water Supply Measures

Objective 1: Increase available water supplies and maximize overall water use efficiency to meet identified existing and future needs.

a. Percentage of domestic wastewater reused
b. Uniform gross per capita water use (Public Supply) by District and water supply planning regions
c. Uniform residential per capita water use (Public Supply) by District and water supply planning regions
d. Within each water supply planning region: 1) the estimated amount of water supply to be made available through the water resource development component of the Regional Water Supply Plan; 2) percent of estimated amount under development; and 3) percent of estimated amount of water actually made available
e. Within each water supply planning region, the estimated additional quantities of water supply made available through District water supply development assistance

Objective 2: Prevent contamination of water supplies.

a. Percentage of surface water supply sources for which water quality fully attains the designated use

Water Quality Measures

Objective 1: Protect and improve surface water quality.

a. Percentage of surface waters with healthy nutrient levels
b. Percentage of surface waters with healthy biological conditions

Objective 2: Protect and improve groundwater quality.

a. Improving, degrading and stable trends in nitrate concentrations in springs

Natural Systems Measures

Objective 1: Maintain the integrity and functions of water resources and related natural systems.

a. Number of MFLs, by water body type, established annually and cumulatively
b. Percentage of MFLs established in accordance with previous year's schedule
c. For the previous fiscal year, the total acres of wetlands or other surface waters authorized by Environmental Resource Permit (ERP) to be impacted and the number of acres required to be created, enhanced, restored and preserved

Objective 2: Restore degraded water resources and related natural systems to a naturally functioning condition.

a. Acres of invasive nonnative aquatic plants in inventoried public waters

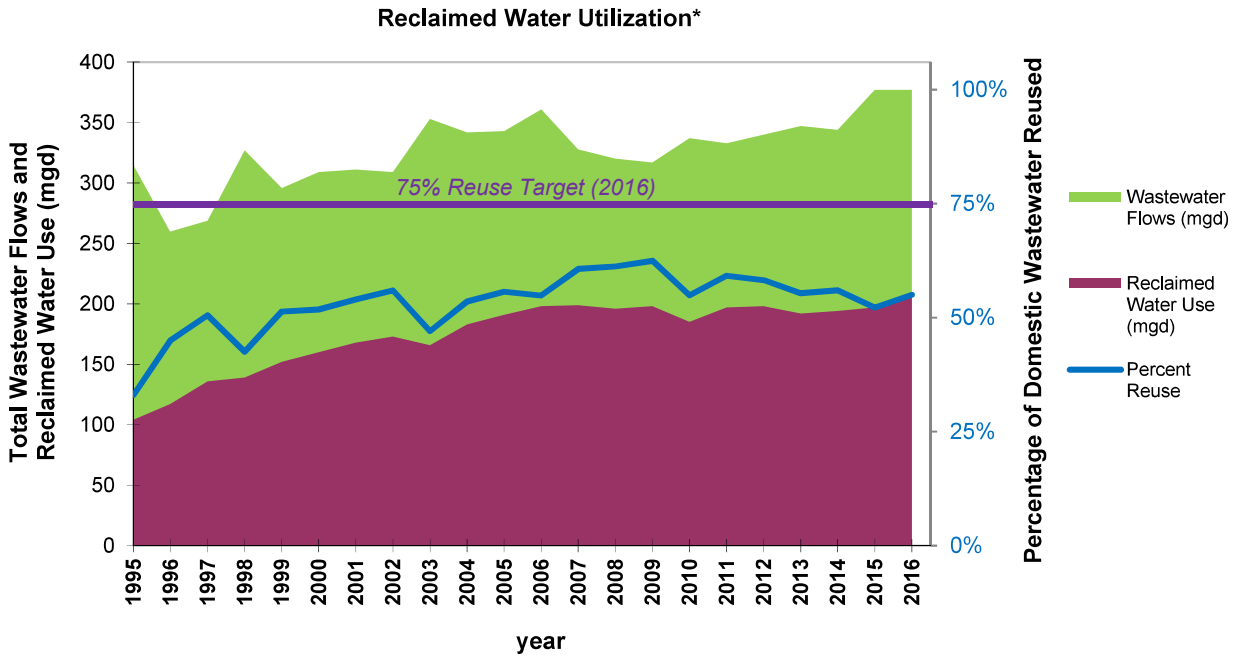
Flood Protection Measures

Objective 1: Minimize damage from flooding.

a. Percentage of District works maintained on schedule

Water Supply Measure 1a: Percentage of domestic wastewater reused

The State and the District emphasize the beneficial use of reclaimed water as part of water supply planning strategies. This water resource has become an important alternative for potable quality supplies for such beneficial uses as irrigation, industrial processing, power generation and environmental enhancement. This measure is intended to reflect the quantity of reclaimed water available and reused.



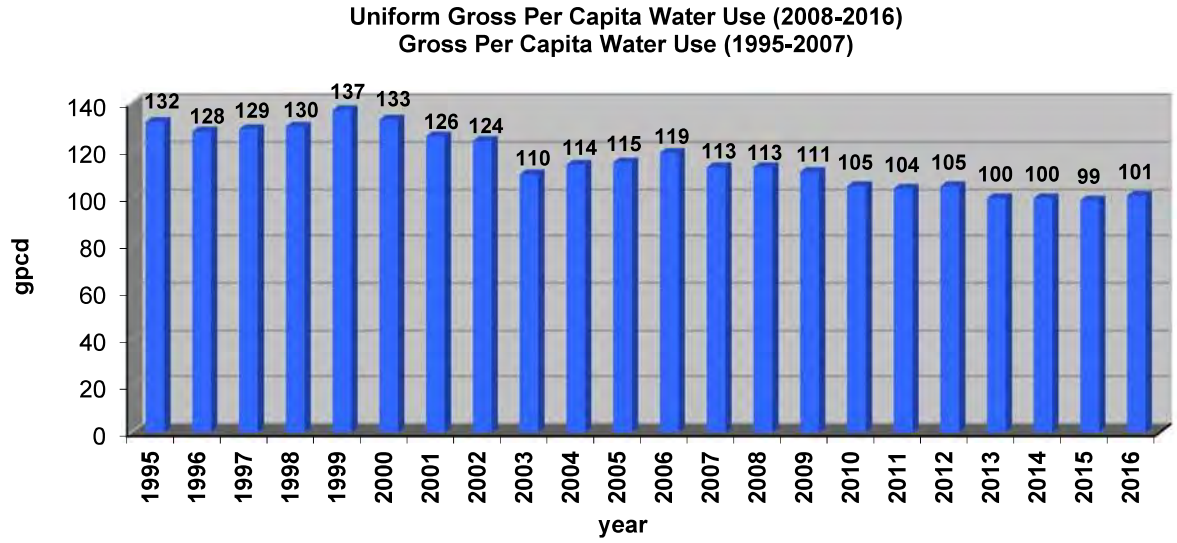
Source: 2016 Reuse Inventory, Florida Department of Environmental Protection, 2017.

The amount of domestic wastewater reused in the District has increased from 104 million gallons per day (mgd) in 1995 to 206 mgd in 2016, based on available data. The percentage of wastewater reused has also increased, reaching 55 percent in 2016. The data shows that there has been relatively stable growth in wastewater plant flows (i.e., reclaimed water available) and the amount of reclaimed water used over the past 22 years. The long-term increase in reclaimed water flows is associated with the increased number of online reuse projects. Newly completed reuse projects resulted in several thousand additional customers connected in 2016, including large numbers within Lakewood Ranch in Manatee and Sarasota counties. Districtwide, reclaimed water customer numbers exceed 132,000, an increase of more than 390 percent since 2000.

** Data reflects the DEP's definition of reclaimed water, which includes rapid infiltration basins (RIBs) and sprayfields. The reduced reuse percentages in 1995, 1998, 2003 and 2015 reflect elevated wastewater treatment plant flows associated with increased infiltration and inflow of stormwater into sanitary sewer systems. The reduced reuse percentage in 2010 is primarily due to a decrease in residential utilization likely associated with the economic downturn and foreclosure crisis. The 75 percent reuse target is based on 2016 wastewater flows and is applied Districtwide. District estimates of "beneficial" reuse for other planning and tracking exercises may vary based upon regional water supply goals.*

Water Supply Measure 1b: Uniform gross per capita water use (Public Supply) by District and water supply planning regions

Public supply represents one of the largest water use sectors, and is experiencing sustained year to year growth. Public supply water use includes the water distributed by most public and private water utilities. This measure is intended to show the trend of such use, recognizing that water conservation can serve as a significant source of "new water" to meet public needs. In 2008, the DEP and the water management districts established uniform statewide methods of measuring per capita for public water supply for the purposes of consistent statewide assessment of water conservation performance, reporting, program evaluation and for public communication. The Uniform Gross Per Capita is defined as utility service area finished water use divided by utility service area residential population and is reported for 2008-2016. Other years (1995-2007) were generated using an earlier methodology for gross per capita public supply use, calculated by dividing the total publicly supplied water used (in gallons per day) by the functional population (includes seasonal and tourist) served.

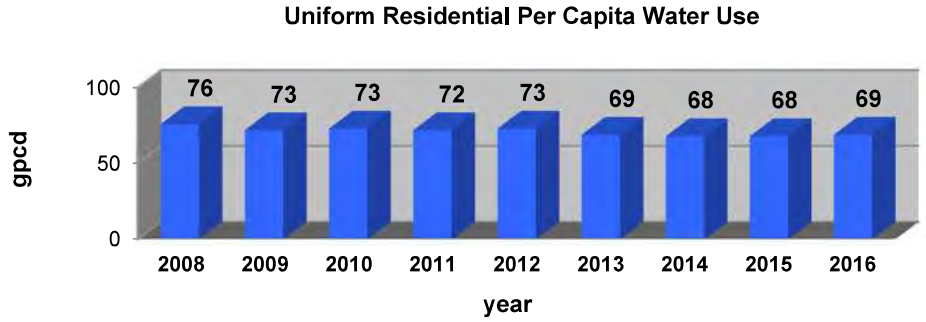


Source: SWFWMD Estimated Water Use Reports, 1995-2015, draft 2016.

The graphic reports gross per capita water use for the last 22 years. While it is recognized that many factors influence water use (e.g., rainfall), there has been a clear trend toward reduced per capita rates. This trend can be attributed in part to the increasing availability of reuse systems, water conservation programs, enhanced public awareness and related efforts. The per capita figures for 1999 and 2000 are reflective of the severe drought experienced Districtwide and resulting higher demand levels, in contrast to the per capita reduction in 2001 and 2002 "wet years." Years 2003 to 2007 reflect a general trend toward lower per capita use rates. Years 2008 to 2016, which are based on uniform per capita water use, continue to show a general downward trend. This is credited to the continued increase in non-residential reclaimed water use and the implementation of conservation practices.

Water Supply Measure 1c: Uniform residential per capita water use (Public Supply) by District and water supply planning regions

This measure accounts for the portion of publicly supplied water that is used for residential purposes only. The uniform residential per capita is defined as the utility service area finished water used by dwelling units (not connections) divided by the utility service area residential population. The DEP and the five water management districts agreed on this per capita definition in 2008, and to include the data in the annual progress report. This is the ninth reporting year for the residential uniform per capita measure.

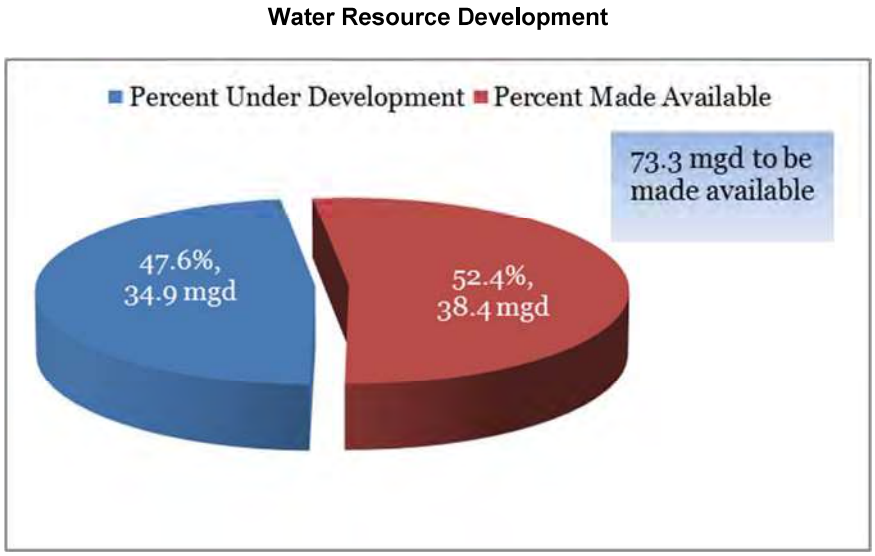


Source: SWFWMD Estimated Water Use Reports, 2008-2015, draft 2016.

To ensure a sustainable water supply, utilities are tapping alternative sources and emphasizing conservation. Opportunities exist for all public supply users to conserve, including residential users, which make-up a significant portion of the public supply customers. The District has devoted considerable resources to encourage the implementation of water-conserving rate structures and indoor/outdoor practices for residential water users. These efforts have resulted in a uniform residential per capita water use decline of seven gallons per day since the methodology was implemented in 2008. Additionally, the District has implemented improvements to the reporting process to further ensure data accuracy.

Water Supply Measure 1d: Within each water supply planning region: 1) the estimated amount of water supply to be made available through the water resource development component of the Regional Water Supply Plan (RWSP); 2) percent of estimated amount under development; and 3) percent of estimated amount of water actually made available

The District is charged with expanding the "water pie" to assure future water supply availability. This can be done, in part, through water resource development. Projects receiving District funding assistance are categorized as either Water Resource Development (WRD) or Water Supply Development assistance. This measure is intended to document progress toward WRD. The District typically has the lead role in identifying and implementing WRD efforts.

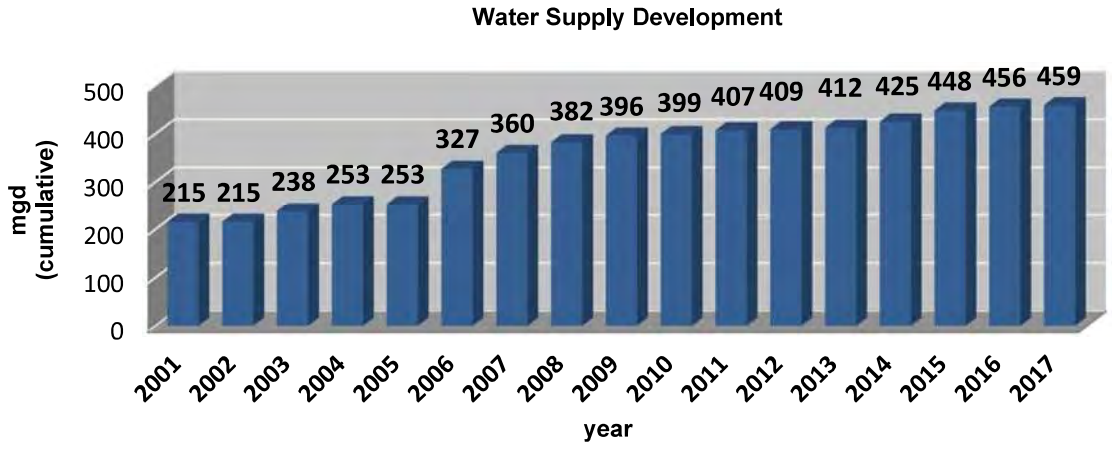


Source: SWFWMD 2018 Five-Year Water Resource Development Work Program, District Water Resources Staff, 2017

The District's WRD component takes two forms: activities and projects. WRD "activities" include hydrologic data collection and investigations, the Minimum Flows and Levels (MFLs) Program to define limits of significant harm to water resources and ecology, the Quality of Water Improvement Program (QWIP) that plugs abandoned wells to protect water quality, a network of geohydrologic monitoring wells, and flood control projects. The District has budgeted 19 more narrowly defined WRD "projects" in FY2018. These are regional projects designed to create an identifiable, quantifiable supply of water from either traditional or alternative sources. The WRD projects include research and pilot projects for alternative water supplies, agricultural water conservation projects, and hydrologic/environmental restoration projects that will enhance the amount of water available for both natural systems and supply development. The water quantities produced or conserved by many WRD projects are difficult to measure until the projects are completed and the benefits are realized. Based on the WRD projects undertaken and quantified since 2003, a total of 38.4 mgd has already been made available, including 6.5 mgd by the lower Hillsborough River recovery strategy and 4.2 mgd by aquifer recharge projects.

Water Supply Measure 1e: Within each water supply planning region, the estimated additional quantities of water supply made available through District water supply development assistance

The Water Supply Development (WSD) component of the District's RWSP identifies water supply options from which regional authorities, local governments, private utilities, and other water users can choose to meet their individual needs. The options are provided as reasonable concepts that water users may pursue for their water supply planning efforts. Water users are primarily responsible for developing these options and are encouraged to apply for funding assistance from the District. Some options are large scale alternative water supply projects that would likely be implemented by a regional water supply authority or a group of users. Other options, such as reclaimed water infrastructure and conservation programs, could be implemented by individual utilities and other users.

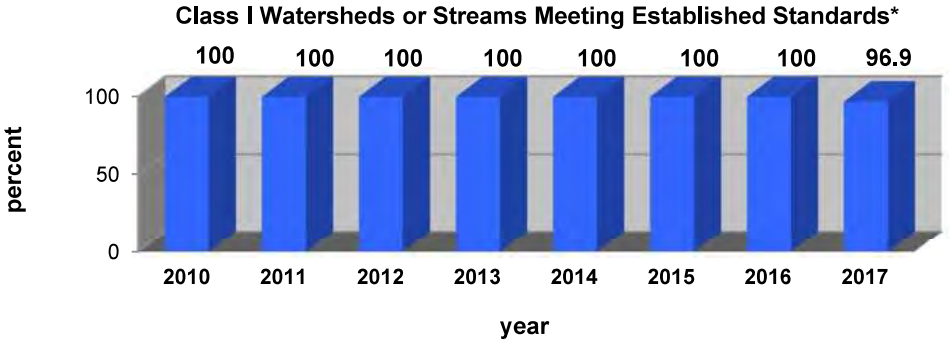


Source: District Water Resources Staff, 2017.

This graphic shows water supply made available or developed on a cumulative basis through WSD funding assistance. From 1994 through 2017, the District provided $977 million in project funding to develop and conserve water supplies. An estimated 459 mgd has been made available by completed or ongoing projects. District funds are typically matched on a 50/50 cost-share basis with the partnering entity. Major accomplishments of the District's WSD component in FY2017 included completion of the Pasco Reclaimed Water Treatment Wetland and Treatment Site and the Polk County Customer Portal Project. The latter will enable more effective distribution of conservation information to customers in the county's northeast service area where per capita consumption is highest.

Water Supply Measure 2a: Percentage of surface water supply sources for which water quality fully attains the designated use

Protecting and maintaining high quality water for human use is a critical component of water management. It is essential these sources be monitored and maintained in a high quality state for future water supply use. Under Florida's water quality monitoring programs, surface water bodies are regularly assessed to determine whether designated uses are being attained.



Source: Florida Department of Environmental Protection, 2010-2017.

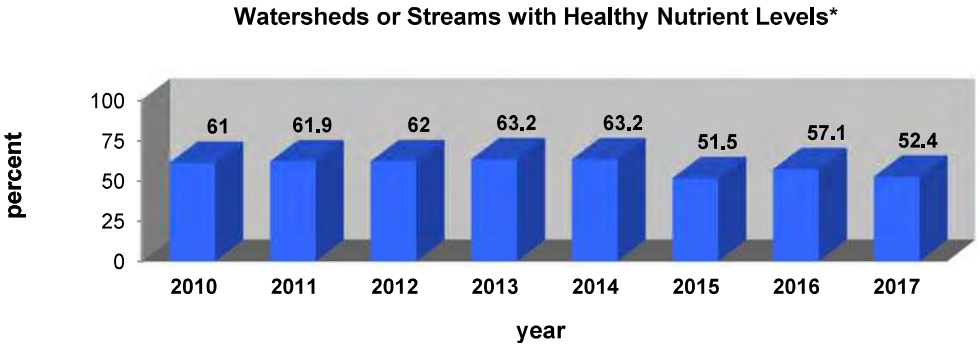
Of the 62 Class I water body identification units (WBIDs) in the District, 32 water bodies were assessed in 2017. Data indicate these surface waters are currently meeting their designated use, except for iron impairment in one water body.

Since the 2010 reporting period, the methodologies utilized for determining whether a Class I Water is meeting its designated use have been based on assessment of toxic parameters (metals, pesticides, chemicals and un-ionized ammonia). In 2015, DEP implemented new reporting criteria for this metric. Since the differences between the old and new reporting criteria are minimal, comparisons to prior years can still be made.

**The data provided by DEP in 2014 is the same as that provided in 2013, as DEP was developing new reporting criteria in 2014 that went into effect in 2015.*

Water Quality Measure 1a: Percent of surface waters with healthy nutrient levels

The District has an abundance of surface waters used for a variety of purposes by the people who live and work here, by those who are visiting, and by the fish and wildlife that depend on these waters. Excessive nutrient loading remains the largest single threat to these resources. While nutrients are essential to life and ecosystem functions, excessive nutrients can cause nuisance algal and plant growth, oxygen depletion, loss of water clarity, loss of desirable species, loss of biodiversity, flavor effects on drinking water, increased probability of human and animal pathogens and other water quality impairments. This measure documents the percentage of surface waters with healthy nutrient levels.



Source: Florida Department of Environmental Protection, 2010-2017.

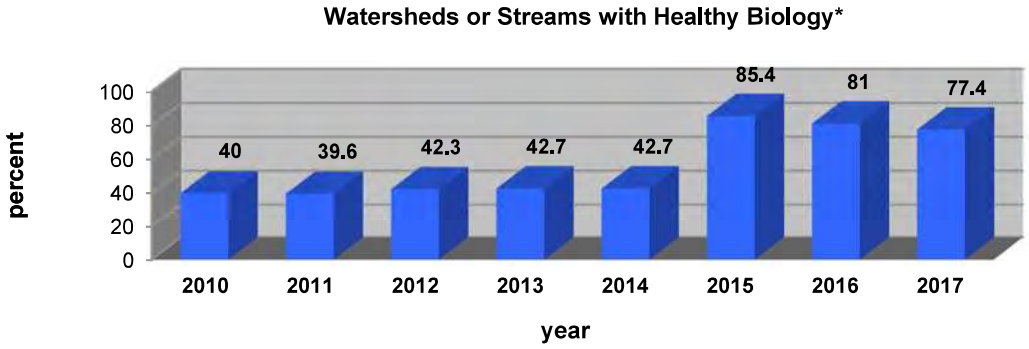
Of the total water bodies with sufficient data to satisfy assessment criteria (525 WBIDS out of 1,427 WBIDS Districtwide), 52.4 percent were determined to be healthy for nutrients in 2017.

In 2015, DEP implemented new reporting criteria. Under the new reporting criteria, nine nutrient-related parameters are utilized to determine waters with healthy levels of nutrients. For prior year assessments, only two nutrient-related parameters (elevated chlorophyll concentrations or trophic state indices) were used. The expansion in the number of parameters evaluated has resulted in an increase in the number of water bodies determined to have unhealthy nutrient levels. Consequently, comparisons to years prior to 2015 can no longer be made.

**The data provided by DEP in 2014 is the same as that provided in 2013, as DEP was developing new reporting criteria in 2014 that went into effect in 2015.*

Water Quality Measure 1b: Percentage of surface waters with healthy biological conditions

Biological conditions are included in the broader definition of water quality. These conditions are indicators of water body health, and include investigations of dissolved oxygen, habitat conditions and the health of aquatic insect communities. Most importantly, the conditions provide cumulative information on all activities occurring within the watershed and can be used to establish baseline characteristics, characterize the overall condition of a watershed, identify potential problem pollutants, target more intensive diagnostic sampling and to support land use planning and management. This measure addresses the percentage of assessed watersheds or stream reaches with healthy biological conditions.



Source: Florida Department of Environmental Protection, 2010-2017.

The DEP primarily uses the Stream Condition Index (SCI) and Biological Reconnaissance (BioRecon) to evaluate the biological conditions in flowing surface waters. Of the 159 watersheds or stream reaches assessed in 2017 within the District, 36 watersheds or stream reaches were determined to be impaired based on biological assessments. The numbers for the previous seven years are as follows: 2016 (84 assessed/16 impaired), 2015 (48 assessed/7 impaired), 2014 (157 assessed/90 impaired), 2013 (157 assessed/90 impaired), 2012 (163 assessed/94 impaired), 2011 (164 assessed/99 impaired), 2010 (191 assessed/116 impaired). The difference in the percentage of healthy water bodies during years 2010-2014 is believed to be largely due to the number and frequency of the water bodies assessed, as well as the basin(s) targeted for the assessment.

In 2015, DEP implemented new reporting criteria for this metric. The primary differences between the old and the new reporting criteria include the number and frequency of the water bodies assessed, the basin(s) targeted for the assessment, and the quality of the data being used in the assessment. These changes have resulted in a decrease in the number of waterbodies determined to have unhealthy biological conditions. Consequently, comparisons to years prior to 2015 can no longer be made.

**The data provided by DEP in 2014 is the same as that provided in 2013, as DEP was developing new reporting criteria in 2014 that went into effect in 2015.*

Water Quality Measure 2a: Improving, degrading and stable trends for nitrate concentrations in springs

Increasing levels of nitrate in Upper Floridan aquifer groundwater discharging from springs continues to be of concern in the District and statewide. While not yet posing significant human health impacts, increasing nitrate concentrations stimulate the growth of aquatic vegetation, which can alter the ecological function of springs and receiving water bodies. This measure is intended to identify District springs where nitrate concentrations are increasing (degrading), decreasing (improving), or remaining stable.

The following table depicts nitrate trend analyses for 46 selected springs within the District. The 2017 trends are derived by utilizing the Wilcoxon Rank-Sum test to compare data from the temporal groups of January 2010–December 2013 (Group 1) against January 2014–August 2017 (Group 2).

Trends in Nitrate* Concentrations in Selected Springs (*Source: District Data Collection Bureau, 2017*)

Spring	Wilcoxon P- Statistic	No. of Samples Group 1	Median Nitrate (mg/l) Group 1	No. of Samples Group 2	Median Nitrate (mg/l) Group 2	Wilcoxon Trend
ALLIGATOR SPRING (GUM SPRING 01A)	0.000033	13	1.43	14	1.63	Degrading
BAIRD SPRING	0.063086	16	0.28	15	0.29	Degrading
BELTONS MILLPOND MAIN SPRING	0.318374	16	0.19	14	0.16	Improving
BETEE JAY SPRING	0.755182	16	0.46	14	0.46	Stable
BIG KING SPRING	0.015426	14	0.68	15	1.18	Improving
BOBHILL SPRING	0.000187	16	0.74	15	0.65	Improving
BUCKHORN MAIN SPRING	0.000145	16	1.88	15	2.06	Degrading
CANAL 485A SPRING 1B	0.204329	16	1.34	14	1.31	Stable
CATFISH SPRING	0.006758	16	0.35	15	0.37	Stable
CHASSAHOWITZKA 1 SPRING	0.417231	16	0.64	15	0.63	Stable
CHASSAHOWITZKA MAIN SPRING	0.089022	16	0.60	15	0.58	Stable
CITRUS-BLUE SPRING	0.001275	16	0.69	15	0.84	Degrading
COTTONMOUTH SPRING	0.072601	7	0.37	4	0.19	Improving
CRAB CREEK SPRING	0.952695	16	0.63	15	0.63	Stable
FENNEY SPRING	0.001338	15	0.37	14	0.13	Improving
GUM SPRINGS 1	0.000817	12	1.30	13	1.56	Degrading
GUM SPRINGS 2	0.000774	16	1.38	15	1.54	Degrading
GUM SPRINGS MAIN	0.004994	15	1.40	4	1.55	Degrading
HALLS RIVER HEAD MAIN SPRING	0.001082	11	0.23	6	0.43	Degrading
HEALTH SPRING	0.751781	16	4.19	15	4.20	Stable
HIDDEN RIVER 2 SPRING	0.000015	16	0.87	15	0.94	Degrading
HIDDEN RIVER HEAD SPRING	0.000098	16	0.92	15	0.97	Stable
HILLSBOR RIVER CRYSTAL SWAMP 1	0.889175	16	2.06	12	2.22	Degrading
HOMOSASSA 1 SPRING	0.000008	17	0.62	15	0.68	Degrading
HOMOSASSA 2 SPRING	0.000157	17	0.60	15	0.64	Stable
HOMOSASSA 3 SPRING	0.000170	17	0.66	15	0.68	Stable
HUNTERS SPRING	0.983406	16	0.61	14	0.60	Stable
JENKINS CREEK SPRING	0.858791	16	0.78	15	0.80	Stable
LITHIA MAIN SPRING	0.013911	16	2.59	4	2.45	Improving
LITTLE KING SPRING	0.016822	16	0.48	14	0.76	Degrading
LITTLE WEEKI WACHEE SPRING	0.202730	8	0.83	4	0.74	Improving
MAGNOLIA CIRCLE SPRING	0.109291	16	0.56	15	0.57	Stable
MAGNOLIA SPRING	0.000721	16	0.61	15	0.59	Stable
PARKER ISLAND SPRING	0.133385	16	0.19	14	0.19	Stable
RAINBOW 1 SPRING	0.004656	16	2.24	14	2.39	Degrading
RAINBOW 4 SPRING	0.000003	16	2.07	14	2.30	Degrading
RAINBOW 6 SPRING	0.049978	16	1.38	14	1.43	Degrading
RAINBOW BRIDGE SEEP NORTH	0.027423	16	1.68	14	1.77	Degrading
RAINBOW BUBBLING SPRING	0.000031	16	1.64	14	1.82	Degrading
RAINBOW SWAMP 3 SPRING	0.441097	16	1.71	14	1.69	Stable
RUTH SPRING	0.635154	16	0.68	15	0.67	Stable
TARPON HOLE SPRING	0.008477	16	0.24	13	0.22	Improving
TROTTER MAIN	0.016704	16	0.70	15	0.72	Stable
WEEKI PRESERVE SPRING	0.128009	16	0.11	15	0.25	Degrading
WEEKI WACHEE SPRING	0.002172	16	0.91	15	0.87	Stable
WILSON HEAD SPRING	0.000373	16	0.55	15	0.46	Improving

* The sum of nitrite and nitrate is used to represent nitrate.
The Wilcoxon Rank-Sum test was used to determine whether there is a significant difference between spring water quality data populations grouped by time periods. It is a non-parametric statistical test that is used to determine whether one independent group of observations tends to contain larger values than another independent group. The Wilcoxon Rank-Sum test calculates a p-value, a significance level obtained by the data. If the calculated p-value is less than 0.05, the 95 percent confidence level, the groups are considered significantly different.

The overall water quality trend for these 46 selected springs in the District shows a stable or improving trend, indicating there was no increase in nitrate contamination in 28 of the springs tested. When compared to last year's evaluation, three springs went from stable to improving, five went from stable to degrading, four went from degrading to stable and three went from improving to stable. Nitrate concentrations in springs may fluctuate based on a variety of factors including land use change, climate, irrigation practices, etc.

Various DEP initiatives support funding for investigations and implementation of strategies to improve water quality in Florida's springs, including recognition of the significance of public education. The District also supports cooperative funding initiatives and restoration efforts, such as stormwater improvement projects in spring basins.

In 2017, the District completed the process of developing and approving management plans for all five of its first-magnitude springs systems. Although a major accomplishment, significant work remains to implement plan recommendations.

Natural Systems Measure 1a: Number of MFLs, by water body type, established annually and cumulatively

The District maintains and annually updates a "Minimum Flows and Levels Priority List and Schedule" that identifies water bodies for which the District plans to establish minimum flows and levels (MFLs). The list and schedule is based on the importance of the waters to the State or region, and includes those waters which are experiencing or may reasonably be expected to experience adverse impacts. The District continues to make progress in MFLs establishment.

By the end of FY2017, the District had established (i.e., adopted by rule) MFLs for 122 lakes, 41 wetlands, 21 river segments, 10 springs or spring complexes, seven aquifer sites north of Tampa Bay, a single aquifer site in the Dover/Plant City area, and the Floridan aquifer system in the most impacted area of the Southern Water Use Caution Area (SWUCA), for a total of 203 established MFLs. The District had also adopted revised MFLs for one river segment and 25 lakes, completed reevaluations indicating that adopted MFLs for one river segment and two lakes did not require revision, and determined that MFLs development for the intermediate aquifer system in the SWUCA was not technically feasible. The following table lists the number of MFLs that have been developed annually and cumulatively by the District during the past 15 years. The decrease in cumulatively adopted springs MFLs for FY2017 relative to FY2016 is associated with a revised approach for counting springs and spring groups.

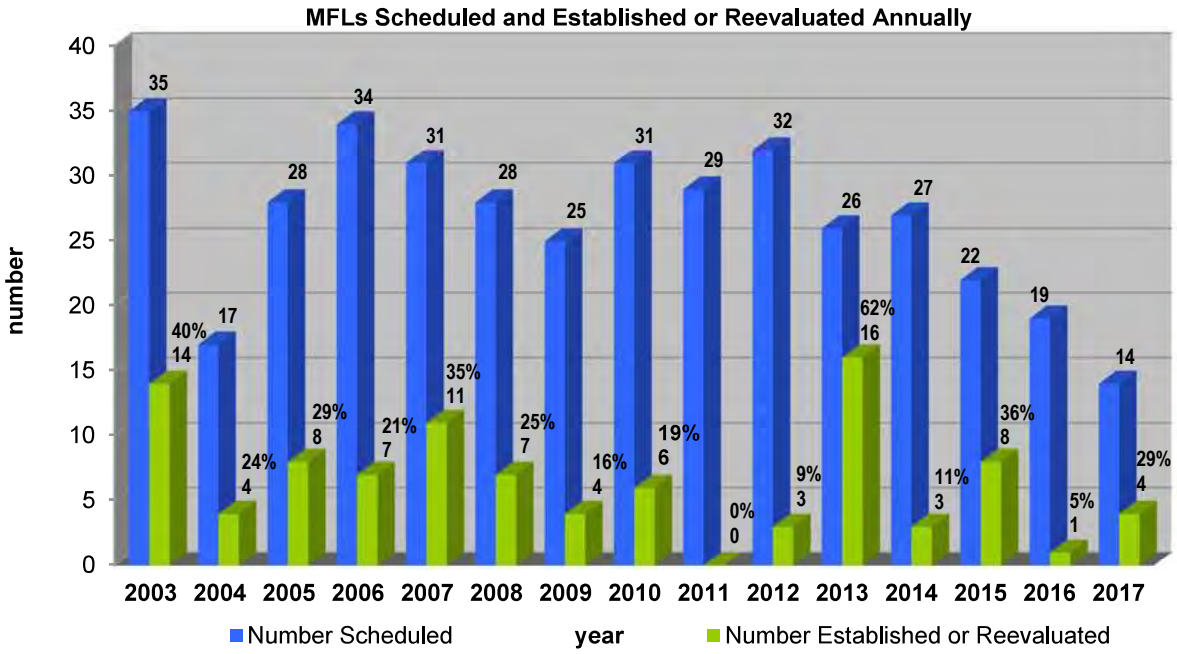
Lakes/Wetlands, Rivers/Streams, Springs and Aquifers with MFLs

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Lakes and Wetlands															
Cumulatively	70	99	104	128	144	145	145	147	147	149	157	160	161	161	163
Annually	14	29	5	24	16	1	0	2	0	2	8	3	1	1	2
River/Stream Segments															
Cumulatively	1	1	4	7	10	11	13	16	16	17	19	19	19	19	21
Annually	0	0	3	3	3	1	2	3	0	1	2	0	0	0	2
Springs															
Cumulatively	0	0	0	0	2	7	9	9	9	9	15	15	15	16	10
Annually	0	0	0	0	2	5	2	0	0	0	6	0	0	1	2
Aquifers (Wells or Systems)															
Cumulatively	7	7	7	8	8	8	8	9	9	9	9	9	9	9	9
Annually	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0

Source: SWFWMD Springs & Environmental Flows Staff, 2017.

Natural Systems Measure 1b: Percentage of MFLs established or reevaluated in accordance with previous year's schedule

The District's Minimum Flows and Levels Priority List and Schedule identifies lakes, wetlands, river/streams, springs and aquifers for which MFLs are to be established and reevaluated. The list and schedule is updated annually and submitted to the DEP for approval. The following graphic shows the number of water bodies scheduled for MFLs establishment and/or reevaluation on an annual basis along with the number adopted and/or reevaluated for the past 15 years to provide a means for tracking progress in MFLs establishment.



Source: SWFWMD Springs & Environmental Flows Staff, 2017.

The 2017 MFLs Priority List identified a total of 14 MFLs scheduled for establishment or reevaluation during the calendar year, including 6 lakes, 6 river segments and 2 spring groups. MFLs were adopted for 4 of the 16 priority water bodies in FY2017 and included those established for Crystal River, Rainbow River and the Kings Bay and Rainbow spring groups. Rulemaking for 22 priority water bodies scheduled for MFLs adoption (lakes Crews and Hancock) or reevaluation (lakes Big Fish, Buddy, Clinch, Crooked, Dan, Eagle, Horse, Jackson, Juanita, Letta, Little Jackson, Lotela, McLeod, Merrywater, Moon, Pasadena, Rainbow, Starr, Sunset, Wales) in 2016 or earlier, and 1 water body (Little Moon Lake) connected to a prioritized lake scheduled for reevaluation in 2016, was also completed by the end of FY2017. Board approval and completion of rulemaking for 10 additional priority water bodies scheduled for MFLs adoption (lakes Aurora, Damon, Easy, Eva, Lowery, upper Pithlachascotee River, lower Pithlachascotee River) or reevaluation (lakes Deer, Saddleback and Round) in 2016 or 2017 is anticipated by the end of calendar year 2017.

MFLs adoption was delayed for two of the 14 priority water bodies scheduled for establishment in 2017, including the lower Braden and lower Manatee river segments. Factors causing the delays included the need for continued discussions with water-supply stakeholders, and additional data collection and analysis. Despite these delays, the progress of this program is considered good.

Natural Systems Measure 1c: For the previous fiscal year, the total acres of wetlands or other surface waters authorized by Environmental Resource Permit (ERP) to be impacted and the number of acres required to be created, enhanced, restored and preserved

The ERP Program evaluates surface water management systems for impacts to natural systems (surface water and wetlands), water quality, and water quantity (flood protection) from various development projects. Impacts to surface waters and wetlands, unless specifically exempted, must be eliminated or reduced and, if unavoidable, mitigated. The intent of mitigation is to replace the functions of the impacted natural systems, whether involving water quality treatment, flood protection, wildlife habitat or other factors. This measure addresses the extent to which natural systems are impacted, and the extent to which impacted systems are replaced.

Environmental Resource Permit Results (Acres)*													
Wetlands	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Impacted (temporary & permanent)	475	571	851	743	840	492	535	492	478	594	856	746	760
Created/ Restored	415	670	334	656	923	1016	1088	285	127	156	432	206	207
Enhanced	759	581	653	823	380	1995	1743	269	293	189	100	251	482
Preserved	6274	7612	7206	4418	3811	3641	3948	4248	1809	2079	1363	2054	4046

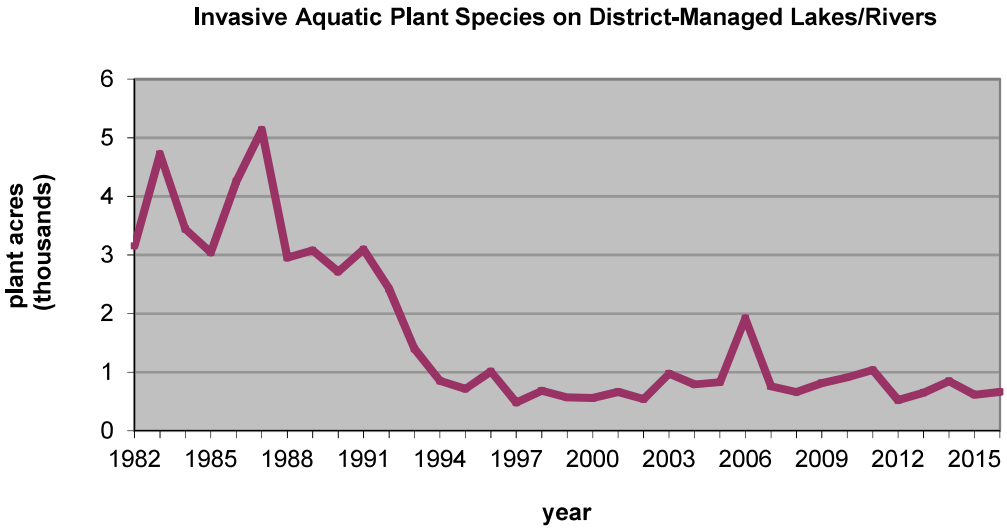
Source: SWFWMD Environmental Resource Permitting Database, October 2017.

The District's ERP Program shows a strong preference for avoiding wetland impacts as the best means to retain the functions of these important systems. Although the replacement requirement for unavoidable wetland impacts is based on functional value, the combination of creating, restoring and enhancing wetlands more than offset acres impacted in years 2005-2012.

** Acreages are rounded to whole numbers and have been adjusted from 2014 forward to match the data reported in the DEP Wetland Gain/Loss Report. In FY2012, the methodology for reporting the ERP wetland acres was adjusted to reflect only the UMAM mitigation acres needed to offset the wetland impact functional loss. Prior to FY2012, the data included acres not impacted in the "Preserved" total. The "Preserved" total now only includes acres preserved by a conservation easement that was included as part of the required mitigation. Short form modifications to mitigation banks, which are reported in earlier years, are also now excluded.*

Natural Systems Measure 2a: Acres of invasive nonnative aquatic plants in inventoried public waters

The protection and management of natural surface waters cannot be accomplished without effectively managing troublesome exotic aquatic plant species that can reduce the abundance and diversity of beneficial native plant populations, negatively impact fish and wildlife habitat, hinder navigation and recreational use, degrade water quality, impede water flow and increase sedimentation rates. Aquatic plant management operations conducted by the District on publicly accessible natural waters are funded by and coordinated with the Florida Fish and Wildlife Conservation Commission (FWC) under the Cooperative Aquatic Plant Control Program. This measure is intended to monitor how well the District is managing invasive plant species on public waterways under its jurisdiction.



Source: Florida Fish and Wildlife Conservation Commission Invasive Plant Management Section's Annual Survey Database, 2016.

Significant progress has been made managing populations of invasive aquatic plant species-hydrilla, water hyacinth and water lettuce-on the public waters managed by the District during the period depicted (1982-2016). These species, which are the primary invasive species managed on an annual basis on these waters, have been managed at maintenance levels since 1994. In 2016, a total of 664 acres of these invasive aquatic plant species were detected on the 22,502 acres of District-managed lakes and rivers. This represents less than a three percent coverage and reflects a continuation of effective maintenance control. Some variation in plant acreages is expected on a year-to-year basis since ecological conditions, such as water levels, may result in increased or decreased growth potential or affect planned control operations. It is not realistic to expect complete eradication. The goal is "maintenance control" where targeted plants are regularly monitored and maintained at the lowest feasible level. Additionally, the management philosophy for hydrilla has been evolving since control of the aquatic plant management program was transferred to the FWC. On some waters, the FWC supports allowing increased coverage of hydrilla if it will benefit the primary use of a water body such as waterfowl hunting.

Flood Protection Measure 1a: Percentage of District works maintained on schedule

The District maintains a total of 81 structures, including water conservation structures, salinity barriers, canals and flood control structures. It is essential these facilities be maintained to optimally perform the respective functions. Information contained in the Structure Operations Five-Year Maintenance Plan serves as the guideline for scheduling maintenance on District works.

Year	Number of Structures	Percent of Structures Maintained on Schedule
1999	75	100
2000	75	100
2001	75	100
2002	75	100
2003	84	100
2004	84	100
2005	84	100
2006	84	100
2007	84	100
2008	84	100
2009	84	100
2010	84	100
2011	84	100
2012	81	100
2013	81	100
2014	81	100
2015*	81	76
2016*	81	80
2017*	81	81

Source: SWFWMD Operations Staff, 2017.

In FY2017, repairs on the S-353 flood control structure were not completed on schedule. The need for additional repair work was apparent after dewatering activities exposed the lower portions of the structure. These repairs include improvements to the lift gate mechanism and refurbishment of the concrete spillway.

The District uses a five-year plan to address all needed routine and preventative maintenance on District structures, including the necessary budgets to accomplish the work. Additionally, based on a recommendation in the District's Business Plan, a long-term repair and replacement plan is being developed for the 18 flood control structures.

Conversion of the District's structures to remote operation is ongoing. There are currently 40 structures with remote operational capability.

** In fiscal years 2015-2017, some structures were not maintained on schedule due to implementation of new inspection and maintenance requirements and staff work associated with Hurricane Irma and several other major flooding events.*

Consolidated Annual Report

March 1, 2018

Southwest Florida Water Management District 2017 (2017-2018) Minimum Flows and Levels

Priority List and Schedule and Reservations List and Schedule

Southwest Florida Water Management District

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Table of Contents

SOUTHWEST FLORIDA WATER MANAGEMENT 2017 (2017-2018) MINIMUM FLOWS AND LEVELS PRIORITY LIST AND SCHEDULE AND RESERVATIONS LIST AND SCHEDULE

Overview

Pursuant to Sections 373.036(7) and 373.042(3), Florida Statutes (F.S.), the District is required to annually update its priority list and schedule for the establishment of minimum flows and levels, submit the updated list and schedule to the Florida Department of Environmental Protection (DEP) by November 15th for approval, and include the approved list and schedule in the District's Consolidated Annual Report. Minimum flows and levels are rules established by the state water management districts or DEP that define the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area. Reservations are rules that reserve water from use by permit applications, as necessary for the protection of fish and wildlife or public health and safety.

This 2017 (2017-2018) Minimum Flows and Levels Priority List and Schedule and Reservation List and Schedule (priority list) was been prepared by the Southwest Florida Water Management District to address statutory directives and guidance concerning minimum flow and level and water reservation prioritization included in Rules 62-40.473, and 62-40.474 within the State Water Resource Implementation Rule (Chapter 62-40, Florida administrative Code (F.A.C.). For submission to DEP, the final version of this priority list will be referred to as the 2017 priority list and schedule. It was submitted to the DEP in November 2017 and approved by the DEP in February 2018.

This priority list includes an itemization of priority water bodies with adopted and effective minimum flows and levels rules and a water body with an adopted and effective reservation. Water bodies with previously established minimum flows and levels that have been reevaluated and revised as necessary are identified. Water bodies that may be affected by withdrawals occurring in other water management districts of the state are also identified to support coordination of regulatory activities among the districts. In accordance with Section 373.042(3), F.S., this priority list includes all first magnitude springs and all second magnitude spring within state or federally owned lands purchased for conservation purposes. The listings provided here for established minimum flows and levels and reservations do not supersede information incorporated into District Water Levels and Rates of Flow (Chapter 40D-8, F.A.C.) and Consumptive Use of Water (Chapter 40D-2, F.A.C.) rules.

Proposed minimum flows and levels and reservations are provided in tabular form in this priority list. The tables include information on water body type (lake, wetland, river, aquifer, spring and as appropriate, spring magnitude, which is associated with the rate of spring discharge). Water body location information, including county, basin and latitude/longitude values are also provided. The District’s initial intent regarding completion of voluntary, independent, scientific peer review is identified. All proposed spring and river segment minimum flows and levels will be subjected to voluntary scientific peer review based on the expected level of complexity of the minimum flows and levels and the anticipated degree of public concern regarding the minimum flows and levels. None of the proposed lake minimum flows and levels are expected to be subjected to voluntary scientific peer review based on anticipated use of previously peer-reviewed methodologies for development of the minimum flows and levels. Listed water bodies that may be affected by withdrawals occurring in other water management districts, i.e., are potentially subject to cross-boundary impacts are identified. These listings are not intended as a request for the adoption of a minimum flow or level by the DEP pursuant to Section 373.0421(1), F.S.

Southwest Florida Water Management District Priority Water Bodies with Adopted and Effective Minimum Flows and Levels Rules, Including Those That Have Been Reevaluated

- Alafia River (upper segment) [a]
- Alafia River (lower segment)/Lithia-Buckhorn Spring Group
- Anclote River (lower segment)
- Anclote River (upper segment)
- Braden River (upper segment)
- Chassahowitzka River/Chassahowitzka Spring Group and Blind Spring
- Citrus County Lakes – Ft. Cooper, Tsala Apopka – Floral City, Inverness and Hernando Pools
- Crystal River/Kings Bay Spring Group [b]
- Crystal Springs
- Dona Bay/Shakett Creek System
- Dover/Plant City Water Use Caution Area Minimum Aquifer Level
- Gum Slough Spring Run [a]
- Hernando County Lakes – Hunters, Lindsey, Mountain, Neff, Spring, Tooke, Weekiwachee Prairie, Whitehurst
- Highland County Lakes – Angelo [a], Anoka [a], Denton [a], Jackson [a] (reevaluated), Little Lake Jackson [a] (reevaluated), June-in-Winter [a], Letta [a] (reevaluated), Lotela [a] (reevaluated), Placid [a], Tulane [a], Verona [a]
- Hillsborough County Lakes – Alice, Allen, Barbara, Bird (reevaluated), Brant, Calm, Carroll, Charles, Church, Crenshaw, Crescent, Crystal (reevaluated), Cypress, Dan (reevaluated), Deer, Dosson, Echo, Ellen, Fairy [Maurine], Garden, Halfmoon, Hanna, Harvey, Helen, Hobbs (reevaluated), Hooker, Horse (reevaluated), Jackson, Juanita (reevaluated), Keene, Kell, Little Moon (reevaluated), Merrywater (reevaluated), Mound, Platt, Pretty, Rainbow (reevaluated), Raleigh, Reinheimer, Rogers, Round, Saddleback, Sapphire, Starvation, Stemper (reevaluated), Strawberry, Sunset (reevaluated), Sunshine, Taylor, Virginia, Wimauma
- Hillsborough County Wetland Sites – CBRWF #32, Cosme WF Wetland, CR1, CR2, CR3, CR4, CR5, CR6, EWWF NW-44, MBWF Clay Gully Cypress, MBWF Entry Dome, MBWF Unnamed, MBWF X-4, S21 WF NW-53 East
- Hillsborough River (lower segment) (reevaluated)
- Hillsborough River (upper segment)
- Homosassa River/Homosassa Spring Group
- Levy County Lake – Marion
- Marion County Lakes – Bonable, Little Bonable, Tiger
- Myakka River (lower segment)
- Myakka River (upper segment)
- Northern Tampa Bay – 7 Wells – Upper Floridan aquifer/Saltwater Intrusion
- Pasco County Lakes – Bell, Big Fish (reevaluated), Bird, Buddy (reevaluated), Camp (reevaluated), Clear, Crews, Green, Hancock, Iola, Jessamine, King, King [East], Linda, Middle, Moon (reevaluated), Padgett (reevaluated), Parker aka Ann, Pasadena (reevaluated), Pasco, Pierce, Unnamed #22 aka Loyce
- Pasco County Wetland Sites – CBARWF Q-1, CBARWF Stop #7, CBARWF T-3, CBARWF TQ-1 West, CBRWF A, CBRWF #4, CBRWF #16, CBRWF #20, CBRWF #25, CC Site G, CCW-11, CCW-12, CCW-17, CC W-41, NPWF #3, NPWF #21, SPWF NW-49, SPWF NW-50, SPWF South Cypress, STWF Central Recorder, STWF Eastern Recorder, STWF D, STWF M, STWF N, STWF S-75, STWF Z
- Peace River (lower segment) (reevaluated)
- Peace River (middle segment)
- Peace River (three upper segments – "low" minimum flows)
- Pinellas County Wetland Site – EWWF Salls Property Wetland 10S/10D
- Polk County Lakes – Annie [a], Bonnie [a], Clinch [a] (reevaluated), Crooked [a] (reevaluated), Crystal [a], Dinner [a], Eagle [a] (reevaluated), Hancock, Lee [a], Mabel [a], McLeod [a] (reevaluated), North Lake Wales [a], Parker, Starr [a] (reevaluated), Venus*****, Wales***** (reevaluated)

- Rainbow River/Rainbow Spring Group [a, b]
- Sulphur Springs
- Sumter County Lakes – Big Gant [a], Black [a], Deaton [a], Miona [a], Okahumpka [a], Panasoffkee [a]
- Southern Water Use Caution Area – Upper Floridan aquifer [a]
- Tampa Bypass Canal
- Weeki Wachee River/Weeki Wachee Spring Group

Southwest Florida Water Management District Water Bodies with Adopted and Effective Reservation Rules

- Morris Bridge Sink (water reserved to contribute to achieving or maintaining minimum flows adopted for the lower Hillsborough River for the protection of fish and wildlife)

[a] Water body may be affected by groundwater withdrawals in other water management districts.

[b] Emergency rules in 40DER17, F.A.C. for this water body are in effect until related rules proposed in rule 40D-8-041, F.A.C., become effective.

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2017

Waterbody Name	Waterbody Type	New or Re-evaluation	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude
Aurora, Lake [c]	Lake	New	Polk	No	Yes	27.8788	-81.4654
Damon, Lake	Lake	New	Highlands	No	Yes	27.6330	-81.5098
Deer Lake [c]	Lake	Reevaluation	Hillsborough	No	Yes	28.1679	-82.4627
Easy, Lake [c]	Lake	New	Polk	No	Yes	27.8579	-81.5619
Eva, Lake [c]	Lake	New	Polk	No	Yes	28.0952	-81.6281
Lowery, Lake [c]	Lake	New	Polk	No	Yes	28.1303	-81.6779
Pithlachascotee River (lower segment)	River	New	Pasco	Yes	No	28.2500	-82.7228
Pithlachascotee River (upper segment)	River	New	Pasco	Yes	No	28.2570	-82.6431
Round Lake [c]	Lake	Reevaluation	Hillsborough	No	No	28.1207	-82.5000
Saddleback Lake [c]	Lake	Reevaluation	Hillsborough	No	No	28.1205	-82.4949

[c] Minimum flows and levels in rule development, but not yet effective.

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2018

Waterbody Name	Waterbody Type	New or Re-evaluation	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude
Braden River (lower segment)	River	New	Manatee	Yes	No	27.4411	-82.4878
Manatee River (lower segment)	River	New	Manatee	Yes	No	27.5133	-82.3672
Alice, Lake	Lake	Reevaluation	Hillsborough	No	No	28.1324	-82.6041
Allen, Lake	Lake	Reevaluation	Hillsborough	No	No	28.1572	-82.4888
Brant Lake	Lake	Reevaluation	Hillsborough	No	No	28.1264	-82.4723
Dosson, Lake	Lake	Reevaluation	Hillsborough	No	No	28.1231	-82.5255
Harvey, Lake	Lake	Reevaluation	Hillsborough	No	No	28.1638	-82.4858
Sunshine, Lake	Lake	Reevaluation	Hillsborough	No	No	28.1197	-82.5260
Virginia, Lake	Lake	Reevaluation	Hillsborough	No	No	28.1614	-82.4887
Pierce, Lake	Lake	Reevaluation	Pasco	No	No	28.3209	-82.5128
Peace River (lower segment)	River	Reevaluation	Hardee, DeSoto, Charlotte	Yes	Yes	27.2206	-81.8764
Shell Creek (lower segment)	River	New	Charlotte	Yes	Yes	26.9844	-81.9358

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2019

Waterbody Name	Waterbody Type	New or Re-evaluation	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude
Chassahowitzka River/Chassahowitzka Spring Group and Blind Spring	River, Spring (1st) [d]	Reevaluation	Citrus, Hernando	Yes	No	28.7150	-82.5769
Homosassa River/ Homosassa Spring Group	River, Spring (1st) [d]	Reevaluation	Citrus	Yes	No	28.7994	-82.5889
Calm Lake	Lake	Reevaluation	Hillsborough	No	No	28.1425	-82.5823
Charles, Lake	Lake	Reevaluation	Hillsborough	No	No	28.1160	-82.4809
Church Lake	Lake	Reevaluation	Hillsborough	No	No	28.1034	-82.6004
Echo Lake	Lake	Reevaluation	Hillsborough	No	No	28.1076	-82.6036
Linda, Lake	Lake	Reevaluation	Pasco	No	No	28.1890	-82.4787
Pasco Lake	Lake	Reevaluation	Pasco	No	No	28.3843	-82.4868
Sapphire, Lake	Lake	Reevaluation	Hillsborough	No	No	28.1407	-82.4815
STWF Central Recorder	Wetland	Reevaluation	Pasco	No	No	28.2444	-82.5961
STWF Z	Wetland	Reevaluation	Pasco	No	No	28.2372	-82.5858
STWF Eastern Recorder	Wetland	Reevaluation	Pasco	No	No	28.2458	-82.5656
MBWF Entry Dome	Wetland	Reevaluation	Hillsborough	No	No	28.1161	-82.3069
MBWF X-4	Wetland	Reevaluation	Hillsborough	No	No	28.1239	-82.3372
MBWF Clay Gully Cypress	Wetland	Reevaluation	Hillsborough	No	No	28.1231	-82.3456
MBWF Unnamed	Wetland	Reevaluation	Hillsborough	No	No	28.1056	-82.3456
EWWF NW-44	Wetland	Reevaluation	Hillsborough	No	No	28.1681	-82.6311
EWWF Salls Property Wetland 10S/10D	Wetland	Reevaluation	Pinellas	No	No	28.1672	-82.6828
SPWF NW-49	Wetland	Reevaluation	Pasco	No	No	28.1836	-82.5075
SPWF South Cypress	Wetland	Reevaluation	Pasco	No	No	28.1814	-82.5081
SPWF NW-50	Wetland	Reevaluation	Pasco	No	No	28.1883	-82.5078
CBRWF #25	Wetland	Reevaluation	Pasco	No	No	28.2350	-82.3589
CBRWF #32	Wetland	Reevaluation	Hillsborough	No	No	28.1681	-82.3672
CBRWF #20	Wetland	Reevaluation	Pasco	No	No	28.2039	-82.3553
CR1	Wetland	Reevaluation	Hillsborough	No	No	28.1325	-82.1211
CR2	Wetland	Reevaluation	Hillsborough	No	No	28.1206	-82.1197
CR3	Wetland	Reevaluation	Hillsborough	No	No	28.1108	-82.1206
NPWF #3	Wetland	Reevaluation	Pasco	No	No	28.3161	-82.5750
NPWF #21	Wetland	Reevaluation	Pasco	No	No	28.2897	-82.5750

[d] Magnitude provided for springs (1st = discharge ≥ 100 cubic feet per second; 2nd = discharge ≥ 10 to 100 cubic feet per second).

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2020

Waterbody Name	Waterbody Type	New or Re-evaluation	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude
Little Manatee River (lower segment)	River	New	Hillsborough	Yes	No	27.6708	-82.3528
Little Manatee River (upper segment)	River	New	Hillsborough, Manatee	Yes	No	27.6708	-82.3528
CC W-41	Wetland	Reevaluation	Pasco	No	No	28.3125	-82.3736
CC W-11	Wetland	Reevaluation	Pasco	No	No	28.2981	-82.3842
CC W-12	Wetland	Reevaluation	Pasco	No	No	28.2925	-82.3947
CC W-17	Wetland	Reevaluation	Pasco	No	No	28.2856	-82.3947
CC Site G	Wetland	Reevaluation	Pasco	No	No	28.2725	-82.4050
STWF D	Wetland	Reevaluation	Pasco	No	No	28.2553	-82.6347
STWF S-75	Wetland	Reevaluation	Pasco	No	No	28.2503	-82.5628
STWF M	Wetland	Reevaluation	Pasco	No	No	28.2436	-82.5719
STWF N	Wetland	Reevaluation	Pasco	No	No	28.2425	-82.5522
S21 WF NW-53 East	Wetland	Reevaluation	Hillsborough	No	No	28.1211	-82.5142
Cosme WF Wetland	Wetland	Reevaluation	Hillsborough	No	No	28.1008	-82.5908
CBRWF #16	Wetland	Reevaluation	Pasco	No	No	28.2083	-82.3719
CBRWF A	Wetland	Reevaluation	Pasco	No	No	28.2067	-82.3744
CBRWF #4	Wetland	Reevaluation	Pasco	No	No	28.2289	-82.3653
CBARWF TQ-1 West	Wetland	Reevaluation	Pasco	No	No	28.3436	-82.4864
CBARWF T-3	Wetland	Reevaluation	Pasco	No	No	28.3478	-82.4956
CBARWF Stop #7	Wetland	Reevaluation	Pasco	No	No	28.3436	-82.4744
CBARWF Q-1	Wetland	Reevaluation	Pasco	No	No	28.3461	-82.4697
CR4	Wetland	Reevaluation	Hillsborough	No	No	28.1142	-82.0981
CR5	Wetland	Reevaluation	Hillsborough	No	No	28.0981	-82.0822
CR6	Wetland	Reevaluation	Hillsborough	No	No	28.1258	-82.0994

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2021

Waterbody Name	Waterbody Type	New or Re-evaluation	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude
North Prong Alafia River	River	New	Hillsborough, Polk	Yes	No	27.8836	-82.1003
South Prong Alafia River	River	New	Hillsborough, Polk	Yes	No	27.7965	-82.1178
Withlacoochee River (lower segment)	River	New	Citrus, Levy	Yes	No	29.0208	-82.6381
Withlacoochee River (upper segment, U.S. Geological Survey Holder gage to U.S. Geological Survey Wysong gage)	River	New	Citrus, Marion, Sumter	Yes	Yes	28.9886	-82.3497
Withlacoochee River (upper segment, U.S. Geological Survey Wysong gage to U.S. Geological Survey Croom gage)	River	New	Citrus, Sumter, Hernando	Yes	Yes	28.8231	-82.1833
Withlacoochee River (upper segment, upstream of U.S. Geological Survey Croom gage)	River	New	Hernando, Sumter, Pasco, Lake, Polk	Yes	Yes	28.5925	-82.2222

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2022

Waterbody Name	Waterbody Type	New or Re-evaluation	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude
Peace River (upper segment, U.S. Geological Survey Zolfo Springs gage to U.S. Geological Survey Ft. Meade gage)	River	Reevaluation	Hardee, Polk	Yes	No	27.5042	-81.8011
Peace River (upper segment, U.S. Geological Survey Ft. Meade gage to U.S. Geological Survey Bartow gage)	River	Reevaluation	Polk	Yes	No	27.7511	-81.7822
Peace River (upper segment, upstream of U.S. Geological Survey Bartow gage)	River	Reevaluation	Polk	Yes	No	27.9019	-81.8175

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2023

Waterbody Name	Waterbody Type	New or Re-evaluation	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude
Charlie Creek	River	New	Hardee, Polk	Yes	No	27.3747	-81.7967
Horse Creek	River	New	Hardee, DeSoto	Yes	No	27.1992	-81.9886
Cypress Creek	River	New	Hillsborough, Pasco	Yes	No	28.0889	-82.4092

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2024

Waterbody Name	Waterbody Type	New or Re-evaluation	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude
Prairie Creek	River	New	Charlotte, DeSoto	Yes	No	26.9903	-81.8947
Shell Creek (upper segment)	River	New	Charlotte	Yes	No	26.9750	26.9750

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2026

Waterbody Name	Waterbody Type [d]	New or Re-evaluation	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude
Gum Slough Spring Run	Spring (2nd) [d]	Reevaluation	Sumter	Yes	Yes	28.9511	-82.2500

[d] Magnitude provided for springs (1st = discharge ≥ 100 cubic feet per second; 2nd = discharge ≥ 10 to 100 cubic feet per second).

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2027

Waterbody Name	Waterbody Type [d]	New or Re-evaluation	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude
Rainbow River/ Rainbow Spring Group	River, Spring (1st) [d]	Reevaluation	Marion	Yes	Yes	29.0492	-82.4478
Crystal River/Kings Bay Spring Group	River, Spring (1st) [d]	Reevaluation	Citrus	Yes	Yes	28.9064	-82.6239

[d] Magnitude provided for springs (1st = discharge ≥ 100 cubic feet per second; 2nd = discharge ≥ 10 to 100 cubic feet per second).

Southwest Florida Water Management District Reservations Priority List

Waterbody Name	Waterbody Type	County(s)	Proposed Year for Reservation
Hancock, Lake/Peace River (upper segment)	Lake, River	Polk	2018

Consolidated Annual Report

March 1, 2018

2017 Minimum Flows and Levels / Water Quality Grade for Projects

Southwest Florida Water Management District

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MFL/Water Quality Grade for Projects

Overview

Section 373.036(7)(b)9., F.S., provides that the Consolidated Annual Report shall contain a "grade for each watershed, water body, or water segment in which a project listed under subparagraph 8. is located representing the level of impairment and violations of adopted minimum flow or minimum water levels. The grading system must reflect the severity of the impairment of the watershed, water body, or water segment."

Table 1 lists the projects contained within the 2017 Five-Year Water Resource Development Work Plan, the watershed, water body, or water segment, the project impacts, and a grade for two items: 1) the water quality level of impairment and 2) the level of violation of a minimum flow or minimum water level.

Level of Impairment Grade

The Level of Impairment grade is represented as follows:

> **Impaired—High**: This grade is assigned if the water body is impaired for one or more parameters other than mercury and based on a consideration of other factors, including the number of impairments, the presence of Outstanding Florida Waters, the proximity to ongoing or planned restoration activities, the ecological priority of the water for endangered and threatened species, environmental justice concerns, the amount of anthropogenic land use and local aquifer vulnerability.
>
> **Impaired:** This grade is assigned if the water body is impaired for one or more parameters other than mercury.
>
> **Not impaired**: This grade is assigned if the water body is not impaired for any parameters other than mercury.

The DEP provided the impairment grades based upon Total Maximum Daily Loads (TMDL) based Water Body IDs (WBIDs). Projects that impact a specific WBID were identified in Table 1 for that WBID. As an example, a project that replaced disposal of treated waste water in a spray field or Rapid Infiltration Basin (RIB) with beneficial use of reclaimed water utilized the impairment grade associated with the WBID where the spray field or RIB were originally located. It is important to note that projects contained within a Water Resource Development Work Program are focused on water use/conservation with the exception of the projects contained in Appendix A – District Projects for Implementing Basin Management Action Plans.

Level of Violation of Adopted MFL

The water body was evaluated based on the relative magnitude of the MFL violation and rated as close, moderately close, or not close to meeting the MFL. In evaluating this element, the Districts considered the magnitude of the variance from the MFL, the magnitude of the ecological impact, the timeframe for recovery, and the timeframe for completion of the projects.

The water body was also evaluated based on the regional significance of the water body and rated as Tier 1, Tier 2 or Tier 3 with Tier 1 being the highest rating for regional significance and Tier 3 being the lowest rating. In evaluating this element, the Districts considered the water body's size and geographical extent, anticipated timeframe for recovery, ecological importance, recreational uses, navigation, threatened/endangered species, wildlife utilization, aesthetics, and historical and archeological significance.

Level 0: This grade is assigned if the water body is meeting the MFL, but is projected to not meet the MFL within 20 years (that is, the water body is in prevention).

Level I: This grade is assigned if the water body is close to meeting the MFL and the water body is rated as a Tier 3 or Tier 2 for regional significance; or the water body is moderately close to meeting the MFL and the water body is rated a Tier 3 for regional significance.

Level II: This grade is assigned if the water body is close to meeting the MFL and the water body is rated a Tier 1 for regional significance; or the water body is moderately close to meeting the MFL and the water body is rated a Tier 2 for regional significance; or the water body is not close to meeting the MFL and the water body is rated a Tier 3 for regional significance.

Level III: This grade is assigned if the water body is moderately close to meeting the MFL and the water body is rated a Tier 1 for regional significance; or the water body is not close to meeting the MFL and the water body is rated a Tier 2 or Tier 1 for regional significance.

The majority of the projects in the Water Resource Development Work Program will directly assist in a recovery strategy for a Water Use Caution Area (WUCA). The projects are anticipated to impact all water bodies that are included within the WUCA. As an example, the Southern Water Use Caution Area covers a 5,100 square mile area over all or parts of eight counties. There are a total of 21 water bodies (one aquifer level, three river segments, and 17 lakes) that are not achieving their established minimum flow or level in this region. Because the basis for not meeting these MFL's are due to groundwater withdrawals within the confined Upper Florida aquifer in the SWUCA, a project within this area is anticipated to impact the entire area. Therefore, all the impacted waterbodies within a WUCA have been included for each project.

Table 1 - MFL/Water Quality Grade for Projects within the 2018 Water Resource Development Work Plan

Water Resource Development Projects				
Project Number	**Water Resource Development Projects**	**Watershed, Water Body, Water Segment**	**Level of Water Quality Impairment**	**Level of Violation of Adopted MFL**
1) Alternative Water Supply Feasibility Research and Pilot Projects (Programmatic Code 2.2.1.1)				
P926	Sources/Ages of Groundwater in LFA Wells	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
P924	Hydrogeologic Investigations of LFA Polk Central Regional Water Production Facility	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
P925	Optical Borehole Imaging Data Collection from LFA Wells	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
P280	Hydrogeologic Investigation of LFA in Polk County	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N287	South Hillsborough Aquifer Recharge Program (SHARP)	SWUCA Water Bodies Hillsborough Bay Upper 1558E Palm River 1536E McKay Bay 1584B	WBID 1558E - Impaired WBID 1536E - Impaired - High WBID 1584B - Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N842	Bradenton Aquifer Protection Recharge Well	SWUCA Water bodies Manatee River - 1848A	WBID 1848A - Not Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N854	PRMRWSA Partially Treated Water ASR	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N855	Southern Hillsborough Aquifer Recharge Expansion (SHARE) Phase 1	SWUCA Water Bodies Hillsborough Bay Upper 1558E and 1558D Palm River 1536E McKay Bay 1584B	WBID 1558E - Impaired WBID 1536E - Impaired - High WBID 1584B - Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N912	Braden River Utilities ASR Feasibility	SWUCA Water Bodies Whitaker Bayou 1936 Tampa Bay 1558A	WBID 1936 - Impaired WBID 1558A - Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
2) Facilitating Agricultural Resource Management Systems (FARMS) (Programmatic Code 2.2.1.2)				
H017	FARMS Projects	SWUCA Water Bodies NTBWUCA Water Bodies DPCWUCA Water Bodies Shell Creek 2041 Prairie Creek 1962	WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCA/NTBWUCA/DPCWUCA water bodies Level 1 - 27 water bodies Level 2 - 9 water bodies Level 3 - 32 water bodies
H529	Mini-FARMS Program	SWUCA Water Bodies NTBWUCA Water Bodies DPCWUCA Water Bodies Shell Creek 2041 Prairie Creek 1962	WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCA/NTBWUCA/DPCWUCA water bodies Level 1 - 27 water bodies Level 2 - 9 water bodies Level 3 - 32 water bodies

H579	IFAS BMP Implementation Team	SWUCA Water Bodies NTBWUCA Water Bodies DPCWUCA Water Bodies Shell Creek 2041 Prairie Creek 1962	WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCA/NTBWUCA/DPCWUCA water bodies Level 1 - 27 water bodies Level 2 - 9 water bodies Level 3 - 32 water bodies
H015	FARMS Well Back-Plugging Program	SWUCA Water Bodies Shell Creek 2041 Prairie Creek 1962	WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
P429	FARMS Meter Accuracy Support	SWUCA Water Bodies NTBWUCA Water Bodies DPCWUCA Water Bodies Shell Creek 2041 Prairie Creek 1962	WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCA/NTBWUCA/DPCWUCA water bodies Level 1 - 27 water bodies Level 2 - 9 water bodies Level 3 - 32 water bodies
3) Environmental Restoration/Minimum Flows and Levels Recovery [4] (Programmatic Code 2.2.1.3)				
H404	Pump Stations on Tampa Bypass Canal, Morris Bridge Sink	Lower Hillsborough River 1443E	WBID 1443E - Impaired	Level 2
N554	Lake Jackson Watershed Hydrology Investigation	Lake Jackson 1860D	WBID 1860D - Impaired	Level 1
N492	Lower Hillsborough River Pumping Facility Construction	Lower Hillsborough River 1443E	WBID 1443E - Impaired	Level 2
H400	Lower Hillsborough River Recovery Strategy	Lower Hillsborough River 1443E	WBID 1443E - Impaired	Level 2
H089	Upper Myakka /Flatford Swamp Hydrologic Restoration and Implementation	SWUCA water bodies Upper Myakka 1877B	WBID 1877B - Not Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
Surface Water Projects				
Water Supply Development Assistance - Surface Water Projects (Programmatic Budget 2.2.2.1)				
N881	Arcadia Golf Course Reclaimed Water Storage Reservoir	SWUCA Water bodies Lower Peace River 1623C	WBID 1623C - Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
Regional Potable Interconnects				
Water Supply Development Assistance - Regional Potable Water Interconnects (Programmatic Budget 2.2.2.2)				
H094	Polk County Partnership (S)*			
N416	PRMRWSA - Regional Loop System, Phase 1 DeSoto to Punta Gorda (S)	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N823	PRMRWSA - Regional Integrated Loop System Phase 3B (S)	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
	*H094 Polk County Partnership dollars have been redistributed to the PRWC Projects ((N882, N905, and N928)			

Reclaimed Water Projects				
Water Supply Development Assistance - Reclaimed Water Projects (Programmatic Budget 2.2.2.3)				
H076	TECO Polk Power Station Reclaimed Water Interconnects	SWUCA Water Bodies Hillsborough Bay Lower 1558D Alafia River Segments	WBID 1558D - Impaired WBID 1621G - Impaired WBID 1621A - Impaired WBID 1621E - Not Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N024	Polk County NWRUSA Storage and Pumping Station	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N339	Winter Haven #3 Reclaimed Interconnect, Storage, Pumping	SWUCA Water Bodies Peace Creek Drainage Canal 1539	WBID 1539 - Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N536	Auburndale Polytechnic Reclaimed Water Storage and Transmission	SWUCA Water Bodies Lake Agnes Outlet 1466A	WBID 1466A - Not Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N555	Town of Dunedin San Christopher Reclaimed Storage Tanks	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N556	Charlotte County Reclaimed Water Expansion Phase 3	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N667	City of North Port Reclaimed Water Transmission Main Phase 3	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N696	Hernando County US19 Reclaimed Transmission, Phase 1	Mud River - Salt Creek 1382A Weeki Wachee Spring Run 1382F	WBID 1382A - Not Impaired WBID 1382F - Impaired	None**
N697	Pasco County Tampa Bay Golf/Country Club Reclaimed Water Expansion	NTBWUCA Water Bodies Middle Cypress Creek 1428A	WBID 1428A - Not Impaired	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N711	Lakewood Ranch Stewardship District Reclaimed Water Transmission	SWUCA Water Bodies Whitaker Bayou 1936	WBID 1936 - Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N743	Starkey Ranch Reclaimed Water Transmission Project B	NTBWUCA Water Bodies Magnolia - Aripeka Springs 1391B Direct Runoff to Gulf 1400	WBID 1391B - Impaired WBID 1400 - Not Impaired	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N751	Tampa Augmentation Project	NTBWUCA Water Bodies Hillsborough Bay Upper 1558E	WBID 1558E - Impaired	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N755	Hillsborough Integrated Resource Feasibility/Design Phase 3	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N772	Polk County NERUSA Loughman/Ridgewood Reclaimed Water Transmission	SWUCA Water Bodies Big Creek East Watershed 1406	WBID 1406 - Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies

N776	Hillsborough County 19th Ave Reclaimed Transmission Main	NTBWUCA Water Bodies Palm River 1536E Tampa Bay Upper 1558C	WBID 1536E - Impaired - High WBID 1558C - Not Impaired	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N778	Pasco Bexley South Reclaimed Transmission Phase 2	NTBWUCA Water Bodies Magnolia - Aripeka Springs 1391B Direct Runoff to Gulf 1400	WBID 1391B - Impaired WBID 1400 - Not Impaired	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N791	Pasco Starkey Ranch Reclaimed Transmission Project C	NTBWUCA Water Bodies Magnolia - Aripeka Springs 1391B Direct Runoff to Gulf 1400	WBID 1391B - Impaired WBID 1400 - Not Impaired	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N792	Pasco Reclaimed Water Transmission Main Ridge Golf Course	NTBWUCA Water Bodies Magnolia - Aripeka Springs 1391B Direct Runoff to Gulf 1400	WBID 1391B - Impaired WBID 1400 - Not Impaired	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N796	City of Winter Haven Reuse and Aquifer Recharge Feasibility	SWUCA Water Bodies Peace Creek Drainage Canal 1539	WBID 1539 - Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N804	Hillsborough County Sun City Golf Courses RW Expansion	NTBWUCA Water Bodies Palm River 1536E Tampa Bay Upper 1558C	WBID 1536E - Impaired - High WBID 1558C - Not Impaired	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N805	Tarpon Springs Westwinds/ Grassy Pointe Reclaimed System	Anclote River Tidal 1440	WBID 1440 - Impaired	Level 3
N817	Hillsborough Countywide Reclaimed Water Major User Connect	NTBWUCA Water Bodies SWUCA Water Bodies Old Tampa Bay 1558i	WBID 1558i - Impaired	SWUCA/NTBWUCA water bodies Level 1 - 27 water bodies Level 2 - 8 water bodies Level 3 - 32 water bodies
N837	Pasco County Cypress Preserve Reclaimed Water Transmission	NTBWUCA Water Bodies Magnolia - Aripeka Springs 1391B Direct Runoff to Gulf 1400	WBID 1391B - Impaired WBID 1400 - Not Impaired	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N862	Polk County Utilities NERUSA CR 547 Reclaimed Water Transmission Phase 1	SWUCA Water Bodies Big Creek East Watershed 1406	WBID 1406 - Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N863	Hillsborough County Summerfield Sports Complex	NTBWUCA Water Bodies Palm River 1536E Tampa Bay Upper 1558C	WBID 1536E - Impaired - High WBID 1558C - Not Impaired	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N868	Polk County Utilities NERUSA Ernie Caldwell Blvd Reclaimed Water Transmission	SWUCA Water Bodies Big Creek East Watershed 1406	WBID 1406 - Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N888	Haines City Rapid Infiltration Basin and Reuse Improvements Study	SWUCA Water Bodies Lake Eva 15101	WBID 15101 - Impaired High	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N898	Haines City Reclaimed Water Tank and Pump Stations Project	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies

N899	Polk County Utilities Reclaimed Water Recharge Study in DPC WUCA & NW Polk Study	DOVER WUCA MAL Itchepackesassa 1495A	WBID 1495A - Impaired	None**
N918	Polk County Utilities NERUSA FDC Grove Road Reclaimed Water Transmission	SWUCA Water Bodies Big Creek East Watershed 1406	WBID 1406 - Impaired	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N920	West Villages District Reclaimed Water transmission to South Sarasota County	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
P130	Crystal River/Duke Energy Reclaimed Water Interconnection (Springs)	Crystal River 1341	WBID 1341 - Impaired	None**
WC02	Citrus Sugarmill Woods Advanced Wastewater Treatment (Springs)	Chassahowitzka River 1361 Baird Creek 1348D	WBID 1361 - Not Impaired WBID 1348D - Impaired	None**
Brackish Groundwater Projects				
Water Supply Development Assistance - Brackish Groundwater Development Projects (Programmatic Budget 2.2.2.4)				
N600	Punta Gorda Reverse Osmosis Project - Brackish Wellfield Investigation	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N780	Punta Gorda Reverse Osmosis Project - Facility Construction	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N882	PRWC West Polk County Lower Floridan Deep Wells	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N905	PRWC Southeast Wellfield Lower Floridan	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
Aquifer Recharge and Aquifer Storage and Recovery Projects				
Water Supply Development Assistance - Aquifer Recharge & Aquifer Storage and Recovery Projects (Programmatic Budget 2.2.2.5)				
K120	City of North Port Dry Season Potable Water ASR	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
K269	Sarasota County North Reclaimed Water ASR	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
L608	City of Palmetto Reclaimed Water ASR	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N435	Bradenton Surface Water ASR	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies

N665	City of Clearwater Groundwater Replenishment Project Phase 3	NTBWUCA Water Bodies Old Tampa Bay 1558H Stevenson Creek Fresh Segment 1567C	WBID 1558H - Impaired WBID 1567C - Impaired	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N833	City of North Port Permanent ASR Facilities	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
Water Conservation Projects				
Water Supply Development Assistance - Conservation Rebates, Retrofits, Etc. Projects (Programmatic Budget 2.2.2.7)				
N655	City of St. Petersburg Toilet Replacement Program Phase 15	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N716	Polk County Customer Portal Pilot Project	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N728	City of St. Petersburg Sensible Sprinkling Program Phase 7	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N757	Bay Laural Irrigation Controller/ET Sensor Upgrade	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N779	Marion County Toilet Rebate Program, Phase 4	Northern District/Springs Coast	None*	None**
N789	Pasco County ULV Toilet Rebate Program, Phase 10	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N806	Manatee County Toilet Rebate Project Phase 10	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N808	City of Venice Toilet Rebate and Retrofit Project	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N815	City of Arcadia South Distribution Looping Project	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N819	City of St. Petersburg Toilet Rebate Program, Phase 16	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies

N820	Polk County Landscape & Irrigation Evaluation Program	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N822	WRWSA Enhanced Regional Irrigation Evaluation/Conservation Incentives	Northern District/Springs Coast	None*	None**
N840	Venice Advanced Metering Analytics Project	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N845	Pasco County Florida Water Star Pilot Project	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N846	Polk County Landscape and Irrigation Evaluation	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N849	Venice Toilet Rebate and Retrofit Project Phase 6	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N852	Pasco County ULV Toilet Rebate Program Phase 11	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N860	Citrus County Water Sense Labeled Irrigation Controller Account Credit	Northern District/Springs Coast	None*	None**
N875	St Petersburg Florida Water Star Rebate Pilot Project	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N876	New Port Richey Toilet Rebate Program Phase 4	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N877	Manatee County Toilet Rebate Project Phase 11	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
N890	St Petersburg Residential Clothes Washer Rebate Pilot Project	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N909	St Petersburg Sensible Sprinkling Program Phase 8	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
N921	Bay Laurel Center CDD Irrigation Controller/ET Sensor Upgrade Project	Northern District/Springs Coast	None*	None**
N922	Bay Laurel Center CDD Florida Water Star Rebate Pilot	Northern District/Springs Coast	None*	None**

P920	PRWC Outdoor BMPs	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
P921	PRWC Indoor Conservation Incentives	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
P922	PRWC Florida Water Star Builder Rebate Program	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
Water Supply Planning Projects				
Water Supply Planning (Programmatic Budget 1.1.1)				
N781	Hernando County Reclaimed Water Master Plan (Springs)	Northern District/Springs Coast	None*	None**
N816	City of Oldsmar Reclaimed Water Master Plan (NTB)	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 21 water bodies Level 2 - 7 water bodies Level 3 - 18 water bodies
P928	PRWC Peace Creek Integrated Water Supply Plan	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 1 water bodies Level 3 - 14 water bodies
Appendix A District Projects for Implementing Basin Management Action Plans				
District Projects that assist in implementing a BMAP				
W398	Balm Boyette Habitat Rerstoration	Fishhawk Creek 1658	WBID 1658 - Impaired	None**
P113	Rainbow Springs Infrastructure Development Project	Blue Run 1320 Rainbow Springs Group Run 1320B	WBID 1320 - Impaired WBID 1320B - Impaired	None**

None* - Project has no water quality impact on a surface water body

None** - Project is in an area with no MFL recovery strategy and is not expected to fall below a minimum flow or level in 20 years

Consolidated Annual Report

March 1, 2018

Five-Year Capital Improvements Plan *2017-18 through 2021-22*

Southwest Florida Water Management District

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Table of Contents

Introduction

The Five-Year Capital Improvements Plan (CIP) includes projected revenues and expenditures for capital improvements for FY2017-18 through FY2021-22. As directed by Section 373.536(6)(a)3, Florida Statutes, the CIP is presented in a manner comparable to the fixed capital outlay format set forth in Section 216.043, Florida Statutes. The format for this report was jointly developed by the Executive Office of the Governor, the Department of Environmental Protection, and the water management districts. Capital improvement projects may be budgeted in three standard program categories. Those programs and their activities and sub-activities are represented below:

1.0 Water Resource Planning and Monitoring

- 1.1 District Water Management Planning
  - 1.1.1 Water Supply Planning
  - 1.1.2 Minimum Flows and Minimum Water Levels
  - 1.1.3 Other Water Resources Planning
- 1.2 Research, Data Collection, Analysis and Monitoring
- 1.3 Technical Assistance
- 1.4 Other Water Resources Planning and Monitoring Activities
- 1.5 Technology and Information Services

2.0 Land Acquisition, Restoration and Public Works

- 2.1 Land Acquisition
- 2.2 Water Source Development
  - 2.2.1 Water Resource Development Projects
  - 2.2.2 Water Supply Development Assistance
  - 2.2.3 Other Water Source Development Activities
- 2.3 Surface Water Projects
- 2.4 Other Cooperative Projects
- 2.5 Facilities Construction and Major Renovations
- 2.6 Other Acquisition and Restoration Activities
- 2.7 Technology and Information Services

3.0 Operation and Maintenance of Works and Lands

- 3.1 Land Management
- 3.2 Works
- 3.3 Facilities
- 3.4 Invasive Plant Control
- 3.5 Other Operation and Maintenance Activities
- 3.6 Fleet Services
- 3.7 Technology and Information Services

The activity under program 1.0 Water Resource Planning and Monitoring that may include capital improvement projects is 1.2 Research, Data Collection, Analysis and Monitoring. The activities and sub-activities under program 2.0 Land Acquisition, Restoration and Public Works that may include capital improvement projects are 2.1 Land Acquisition, 2.2.1 Water Resource Development Projects, 2.2.3 Other Water Source Development Activities, 2.3 Surface Water Projects, 2.5 Facilities Construction and Major Renovations, and 2.6 Other Acquisition and Restoration Activities. The activities under program 3.1 Operation and Maintenance of Works and Lands that may include capital improvement projects are 3.2 Land Management and 3.2 Works.

The purpose of the CIP is to project future needs and anticipated future funding requirements to meet those needs. *(The District uses a pay-as-you-go approach and does not incur bonded debt.)* The CIP contains only those projects that will be owned and capitalized as fixed assets by the District.

The CIP includes expenditures for basic construction costs (permits, inspections, communications requirements, utilities, outside building, site development, etc.) and other related capital project costs (land, survey, existing facility acquisition, professional services, etc.).

The District's current capital improvement projects are budgeted under the following program activities: 1.2 Research, Data Collection, Analysis and Monitoring; 2.1 Land Acquisition; 2.5 Facilities Construction and Major Renovations, and 3.2 Works.

Standard definitions for these programs and activities used by all five water management districts for CIP preparation follow:

1.0 Water Resource Planning and Monitoring

This program incorporates all water management planning, including water supply planning, development of minimum flows and minimum water levels, and other water resources planning; research, data collection, analysis, and monitoring; and technical assistance (including local and regional plan and program review).

1.2 Research, Data Collection, Analysis and Monitoring – Activities that support district water management planning, restoration, and preservation efforts, including water quality monitoring, data collection and evaluation, and research.

2.0 Land Acquisition, Restoration and Public Works

This program includes the development and construction of all water resource development projects, water supply development assistance, water control projects, support and administrative facilities construction, cooperative projects, land acquisition (i.e., Florida Forever Program), and the restoration of lands and water bodies.

2.1 Land Acquisition – The acquisition of land and facilities for the protection and management of water resources. This activity does not include land acquisition components of "water resource development projects" or "surface water projects."

2.5 Facilities Construction and Major Renovations – Design, construction, and significant renovation of all district support and administrative facilities. The proposed work for the facilities improvement program includes project management, permitting, and conceptual, preliminary, and detailed engineering for the development and preparation of contract plans and specification for the construction of planned replacement, improvement, or repair to the district's administrative and field facilities.

3.0 Operation and Maintenance of Works and Lands

3.2 Works – The maintenance of flood control and water supply system infrastructure, such as canals, levees, and water control structures. This includes electronic communication and control activities.

Southwest Florida Water Management District

Five-Year Capital Improvements Plan

Fiscal Year 2017-18 through Fiscal Year 2021-22

1.0 WATER RESOURCE PLANNING AND MONITORING

1.2 RESEARCH, DATA COLLECTION, ANALYSIS AND MONITORING

REVENUES	FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
Ad Valorem Revenue	$759,659	$2,084,184	$1,096,597	$751,298	$847,500
TOTAL	**$759,659**	**$2,084,184**	**$1,096,597**	**$751,298**	**$847,500**

EXPENDITURES	FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
Aquifer Exploration and Monitor Well Drilling Program	$565,659	$1,890,184	$902,597	$557,298	$653,500
Data Collection Site Acquisitions	194,000	194,000	194,000	194,000	194,000
TOTAL	**$759,659**	**$2,084,184**	**$1,096,597**	**$751,298**	**$847,500**

2.0 LAND ACQUISITION, RESTORATION AND PUBLIC WORKS

2.1 LAND ACQUISITION

	REVENUES	FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
(1)	Prior Year State Appropriations - Florida Forever Trust Fund	$4,300,000	$0	$0	$0	$0
(1)	Balance from Prior Years - District Investment Account	6,900,000	4,400,000	-	-	-
	TOTAL	**$11,200,000**	**$4,400,000**	**$0**	**$0**	**$0**

EXPENDITURES	FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
Florida Forever Work Plan Land Purchases	$11,200,000	$4,400,000	$0	$0	$0
TOTAL	**$11,200,000**	**$4,400,000**	**$0**	**$0**	**$0**

2.5 FACILITIES CONSTRUCTION AND MAJOR RENOVATIONS

REVENUES	FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
Ad Valorem Revenue	$759,100	$393,500	$474,400	$298,900	$494,000
TOTAL	**$759,100**	**$393,500**	**$474,400**	**$298,900**	**$494,000**

EXPENDITURES	FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
DISTRICTWIDE:					
Districtwide Roof and HVAC Replacement, Facility Renovation and Pavement	$759,100	$393,500	$474,400	$298,900	$494,000
TOTAL	**$759,100**	**$393,500**	**$474,400**	**$298,900**	**$494,000**

3.0 OPERATION AND MAINTENANCE OF WORKS AND LANDS

3.2 WORKS

REVENUES	FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
Ad Valorem Revenue	$1,780,000	$2,150,000	$1,050,000	$880,000	$600,000
TOTAL	**$1,780,000**	**$2,150,000**	**$1,050,000**	**$880,000**	**$600,000**

EXPENDITURES	FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
Flood Gate Refurbishment Program	$600,000	$400,000	$400,000	$400,000	$400,000
Structure Hydraulic Cylinders/Actuator Refurbishment Program	100,000	100,000	100,000	100,000	100,000
Programmable Logic Controller (PLC) Upgrades on Structures	100,000	100,000	100,000	-	-
Thirteen-Mile Run Structure System Replacement	250,000	350,000	250,000	280,000	-
Tampa Bypass Canal Weir Gate Remote Operation	200,000	300,000	-	-	-
Manatee Protection Systems at Lake Tarpon and Tampa Bypass Canal	150,000	100,000	200,000	100,000	100,000
Lake Bay Water Conservation Structure Replacement	200,000	-	-	-	-
Structure S159 Major Repairs	110,000	-	-	-	-
Wysong Water Conservation Structure Refurbishment	70,000	800,000	-	-	-
TOTAL	**$1,780,000**	**$2,150,000**	**$1,050,000**	**$880,000**	**$600,000**
TOTAL CAPITAL EXPENDITURES	**$14,498,759**	**$9,027,684**	**$2,620,997**	**$1,930,198**	**$1,941,500**

Notes:

(1) As of September 30, 2016, the District has approximately $15.6 million in prior year funds available for land acquisitions through the Florida Forever program. The funds consist of $11.3 million being held in a District investment account with its use restricted to land purchases that would be eligible for Florida Forever funding. Funds were generated from the sale of land or real estate interests to the Natural Resources Conservation Service (NRCS), the Florida Department of Transportation (FDOT) or local governments for right of way or mitigation purposes. The District also has $4.3 million of prior year allocations from the Florida Forever Trust Fund available and its release is subject to approval by the Department of Environmental Protection. For FY2017-18, $11.2 million has been allocated for planning purposes, with the remaining $4.4 million projected to be allocated for FY2018-19. Funding for FY2019-20 and beyond is subject to future state appropriations from the Florida Forever program and proceeds from the sale of land or real estate interests.

Program: Water Resource Planning and Monitoring

Activity: Research, Data Collection, Analysis and Monitoring

Project Title: Aquifer Exploration and Monitor Well Drilling Program

Type: Monitor Well Construction and Associated Activities

Physical Location: District's 16-County Region

Square Footage/Physical Description: Monitor Wells

Expected Completion Date: Ongoing

Historical Background/Need for Project: This an ongoing project for coring, drilling, testing, and construction of monitor wells at Regional Observation and Monitor-well Program (ROMP) sites and special project sites including the Central Florida Water Initiative (CFWI) region. The ROMP was established in 1974 to construct a District-wide network of groundwater monitoring wells to provide key information concerning existing hydrologic conditions of groundwater sources (s. 373.145 Florida Statutes). In recent years, the ROMP has expanded to include the drilling and construction (and associated data collection activities) of numerous wells associated with key special projects such as the Northern Tampa Bay Water Use Caution Area wellfield recovery monitoring, the Northern Water Resources Assessment Project, the Southern Water Use Caution Area and the CFWI. Exploratory drilling and intensive data collection efforts are performed by District staff, and well construction is generally performed under contract with outside vendors. Drilling and testing will be performed at key well sites to characterize the hydrogeology from land surface to the salt water interface or base of the potable aquifer zone within the Upper Floridan aquifer. Certain sites will also include exploratory data collection activities to characterize the middle confining units and Lower Floridan aquifers. Each well site will have permanent monitor wells installed into the surficial, intermediate, Upper Floridan and Lower Floridan aquifers, as needed. In addition, most well sites will have temporary observation wells installed for conducting aquifer performance tests. The data collected during construction of the well sites will be used in numerous District projects including: models for water supply development, rulemaking for minimum flows and minimum water levels, and long-term water level and water quality monitoring.

Plan Linkages: Strategic Plan; CFWI Data Management and Investigations Team (DMIT) Five-Year Hydrogeologic Work Plan; Geohydrologic Data Five-Year Work Plan

Area(s) of Responsibility: Water Supply, Water Quality and Natural Systems

Alternative(s): The alternative to contracted well construction services would be for the District to own and maintain equipment and increase staffing to perform the services.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The estimated cost of contracted well construction and related activities associated with Upper Floridan and Lower Floridan aquifers, wetland and lake monitoring includes contracted well construction of permanent and temporary wells and associated materials such as casings and cement. Funding for future years pending Governing Board approval through the annual budget process.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): For FY2017-18, $194,000 is budgeted for acquisition of perpetual easements in support of the District's network of groundwater monitoring wells with the *Data Collection Site Acquisitions* project. This includes $70,000 for the purchase of perpetual easements and $124,000 for associated ancillary costs such as appraisals, title insurance, environmental site assessments, and documentary stamps.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): To be determined.

Anticipated Additional Operating Costs/Continuing: To be determined.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$565,659	$1,890,184	$902,597	$557,298	$653,500

Program: Water Resource Planning and Monitoring

Activity: Research, Data Collection, Analysis and Monitoring

Project Title: Data Collection Site Acquisitions

Type: Land and Interests in Land Acquired for Data Collection Sites

Physical Location: District's 16-County Region

Square Footage/Physical Description: To Be Determined

Expected Completion Date: Ongoing

Historical Background/Need for Project: The District acquires perpetual easements for sites necessary to assess groundwater sustainability and development of water supply solutions and to preserve existing sites necessary to construct a Districtwide network of groundwater monitoring wells. The District relies upon a network of groundwater monitor wells to provide information on water levels and water quality of various aquifer systems. The data obtained from these wells is utilized for a large variety of tasks including potentiometric surface map construction, salt water intrusion and other contaminant status reporting, site specific project work, efforts to establish and modify minimum levels, and assessment of current water supplies. Regulation of the Floridan and the intermediate aquifers depend on the data collected from these sites. District computer models also rely heavily on water level information.

Plan Linkages: Strategic Plan; Watershed Management Plans; Southern Water Use Caution Area; Regional Water Supply Plan; Five-Year Water Resource Development Work Program

Area(s) of Responsibility: Water Supply, Water Quality and Natural Systems

Alternative(s): An alternative to obtaining permanent easement for key well sites that are used for minimum flows and minimum water levels (MFLs) and have an extensive history of data collection critical for performance monitoring of the MFLs program, as well as other District initiatives, would be to obtain new sites. The cost to obtain a permanent easement on an existing well site is generally lower than the cost to replace that well site because the new site will still need to have some form of title interest, including well construction costs to replace the wells. In addition, the heterogeneity of the aquifer systems might impact the new well location and not allow for a good comparison of data from a destroyed well site to the new well site.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The cost of well construction and related activities associated with Upper Floridan and Lower Floridan aquifers, wetland and lake monitoring is budgeted with the *Aquifer Exploration and Monitor Well Drilling Program* project, and includes contracted well construction of permanent and temporary wells and associated materials such as casings and cement.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): For FY2017-18, $194,000 is budgeted for acquisition of perpetual easements in support of the District's network of groundwater monitoring wells. This includes $70,000 for the purchase of perpetual easements and $124,000 for associated ancillary costs such as appraisals, title insurance, environmental site assessments, and documentary stamps.

It is projected that the same level of funding of $194,000 will be required from FY2018-19 through FY2021-22. Funding for future years pending Governing Board approval through the annual budget process.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this project are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: To be determined.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$194,000	$194,000	$194,000	$194,000	$194,000

Program: Land Acquisition, Restoration and Public Works

Activity: Land Acquisition

Project Title: Florida Forever Work Plan Land Purchases

Type: Lands Acquired through the Florida Forever Program

Physical Location: District's 16-County Region

Square Footage/Physical Description: To Be Determined

Expected Completion Date: Ongoing

Historical Background/Need for Project: The District has recognized land acquisition as one of its primary tools for achieving its statutory responsibilities. Section 373.139, Florida Statutes, authorizes the District to acquire fee simple or less-than-fee interests to the lands necessary for flood control, water storage, water management, conservation and protection of water resources, aquifer recharge, water resource and water supply development, and preservation of wetlands, streams and lakes. The District purchases land and interests in land through fee simple land acquisition and acquisition of less-than-fee simple interests (e.g., conservation easements) under the State's Florida Forever program. The Florida Forever program provides funding for land acquisition and capital improvements to state agencies, the water management districts (WMDs) and local governments. The authorized uses for the Florida Forever Trust Fund (FFTF) for the WMDs include land acquisition, the Surface Water Improvement and Management (SWIM) program, water resource development, and regional water supply development and restoration. An important aspect to the WMDs expenditure of Florida Forever funds is that at least 50 percent of the allocation from the FFTF must be spent on land acquisition.

As of September 30, 2017, the District has approximately $15.6 million in prior year funds available for land acquisitions through the Florida Forever program. The funds consist of $11.3 million being held in a District investment account with its use restricted to land purchases that would be eligible for Florida Forever funding. Funds were generated from the sale of land or real estate interests to the Natural Resources Conservation Service (NRCS), the Florida Department of Transportation (FDOT) or local governments for right of way or mitigation purposes. The District also has $4.3 million of prior year allocations from the Florida Forever Trust Fund (FFTF) available and its release is subject to approval by the Department of Environmental Protection (DEP).

Plan Linkages: Strategic Plan; Watershed Management Plans; SWIM Plans; Southern Water Use Caution Area

Area(s) of Responsibility: Natural Systems

Alternative(s): The alternatives to purchasing necessary land or interests to achieve statutory responsibilities would be to place additional regulations and restrictions on lands requiring protection. Many of these alternatives are not within the District's authority.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): No construction costs are associated with this request.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): For FY2017-18, $11.2 million is budgeted for land acquisition under the Florida Forever program ($4.3 million funded in prior year appropriations from the FFTF and $6.9 million funded from the sale of land or real estate interests). This includes $10.9 million for land purchases and $300,000 for associated ancillary costs such as appraisals, title insurance, environmental site assessments, and documentary stamps.

The remaining $4.4 million of the $15.6 million in funds available for land acquisitions as of September 30, 2017 through the Florida Forever program is projected to be allocated for FY2018-19. Funding for FY2019-20 and beyond is subject to future state appropriations from the Florida Forever program and the sale of land or real estate interests.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this project are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: The District acquires real estate interests for projects that would enhance its existing ownership responsibilities or provide management benefits. Depending on the size of the property, location and interest acquired, the operating costs may be increased or decreased and are evaluated at the time of acquisition.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$11,200,000	$4,400,000	$0	$0	$0

Program: Land Acquisition, Restoration and Public Works

Activity: Facilities Construction and Major Renovations

Project Title: Districtwide Roof and HVAC Replacement, Facility Capital Renovation, and Pavement

Type: Repairs and Renovations

Physical Location: Brooksville, Tampa, Sarasota and Lake Hancock Offices

Square Footage/Physical Description: Repairs and Renovations as Required

Expected Completion Date: Ongoing

Historical Background/Need for Project: Starting in FY2001-02, the Governing Board created an ongoing program to invest in the replacement and repair of the District facility roofs, heating, ventilation, and air conditioning (HVAC) systems to be capitalized. Staff has developed a multi-year schedule for roof improvements, HVAC system replacements, and renovation projects which allows planning for building improvements and minimizes the opportunity for building damage. The HVAC systems will meet U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) initiatives for reducing energy consumption which will reduce the carbon footprint.

The District currently owns and maintains over 781,000 square feet of parking lot and driveway pavement at its four office locations. This pavement and the associated stormwater management systems represent a significant capital investment. The District hired an engineering firm to conduct an inventory and inspection of these areas. The inspection found that preventative maintenance treatment would need to be performed to extend the life of the paved surfaces by approximately seven to ten years. This work will include repairs of depressions and potholes, double micro surfacing and crack sealing, and applied cold in-depth recycling of existing pavement and new hot mix pavement depending on the condition of the existing asphalt.

Plan Linkages: Strategic Plan

Area(s) of Responsibility: Water Supply, Water Quality, Flood Protection and Natural Systems

Alternative(s): If the Districtwide roof and HVAC replacement, facility capital renovation, and pavement projects are not funded, the facilities maintenance costs are expected to increase significantly as additional maintenance activities are required to prevent leaks and keep facilities in an operative order. Not funding the projects would allow for degraded and deteriorated conditions requiring extensive restoration, such as moisture damage to buildings and expanded pavement cracks, resulting in higher costs than currently proposed. Districtwide roof and HVAC replacement, facility capital renovation, and pavement projects are prioritized in a proactive effort to avoid damage and unnecessary costs while maximizing the life of the equipment and materials.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): Available pricing in 2017 is used for budget planning purposes. Projects are planned to be funded and completed as scheduled below, pending Governing Board approval through the annual budget process.

FY2017-18
- Capital Renovations ($180,000)
- Pavement Repair/Resurfacing ($429,100)

* The balance of $150,000 to be allocated to future projects as identified.

FY2018-19
- Pavement Repair/Resurfacing ($50,000)
- HVAC Replacements ($193,500)
* The balance of $150,000 to be allocated to future projects as identified.

FY2019-20
- HVAC Replacements ($324,400)
* The balance of $150,000 to be allocated to future projects as identified.

FY2020-21
- HVAC Replacements ($148,900)
* The balance of $150,000 to be allocated to future projects as identified.

FY2021-22
- HVAC Replacements ($344,000)
* The balance of $150,000 to be allocated to future projects as identified.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): To be determined.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): These costs are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: To be determined.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$759,100	$393,500	$474,400	$298,900	$494,000

Program: Operation and Maintenance of Works and Lands

Activity: Works

Project Title: Flood Gate Refurbishment Program

Type: Structure Refurbishments/Repairs

Physical Location: District-owned Flood Control Structures in District's 16-County Region

Square Footage/Physical Description: District-owned Flood Control Structures

Expected Completion Date: Ongoing

Historical Background/Need for Project: Major flood control gates are subject to corrosion when submerged in water. Several structures are located in canals that are directly connected to salt water, and consequently are subject to environments that accelerate corrosion. The Major Flood Gate Refurbishment program extends the life of these critical flood control structures by repairing corrosion and adding protective coatings. Also, the program takes advantage of modern materials and technologies that aid in the effort of extending the life of the structures. Services such as gate removal, sandblasting, repairs, and refinishing are contracted for the refurbishment of the gates. As well as refurbishment of lift mechanisms, when necessary, which includes cables, pulleys, wheels, gate opening sensor, replacing hydraulic oil, electronic equipment connected to the gates, and grounding hardware.

Plan Linkages: Strategic Plan

Area(s) of Responsibility: Flood Protection and Natural Systems

Alternative(s): The alternative is to delay repairs which could result in additional costs due to the age of the structures.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The estimated cost over the next five years for refurbishments to major flood control gates including removal, sandblasting, repairs, and refinishing are described below. Funding for future years pending Governing Board approval through the annual budget process.

FY2017-18: $600,000: S551 one gate, S162 (2 out of 7 gates); Leslie Heffner; Bryant Slough
FY2018-19: $400,000: S162 (2 out of 7 gates)
FY2019-20: $400,000: S162 (2 out of 7 gates)
FY2020-21: $400,000: S162 (1 out of 7 gates)
FY2021-22: $400,000: Other gates to be determined based on results from inspections in FY2016-17

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): No other project costs associated with this request have been identified.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this project are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: To be determined.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$600,000	$400,000	$400,000	$400,000	$400,000

Program: Operation and Maintenance of Works and Lands

Activity: Works

Project Title: Structure Hydraulic Cylinders/Actuator Refurbishment Program

Type: Structure Refurbishments/Repairs

Physical Location: District's 16-County Region

Square Footage/Physical Description: District-owned Flood Control Structures

Expected Completion Date: Ongoing

Historical Background/Need for Project: The major flood control gates are operated by hydraulic lift cylinders. Every year there are several cylinders that need to be refurbished. These cylinders are placed on a regular schedule for refurbishing and are done on a maintenance schedule to prevent failure during required operation. Major flood control lift cylinders, couplings and shafts are subject to corrosion when in the water. Several structures are located in canals directly connected to salt water; therefore, are subject to environments that accelerate corrosion. Also, most water conservation structures have electric lift mechanisms/actuators. Typically, these actuators need to be replaced rather than repaired and are subject to lightning strikes, reducing the life of the electrical components. Repairs can include:

- Hydraulic cylinder refurbishment/component replacements (e.g., hydraulic pumps, motors, reservoir, piping, valves);
- Removal and installation of the components;
- Stop log installation and removal;
- New hydraulic oil;
- New electric actuators or electrical components within actuators; and
- Lifting shafts and couplings

Plan Linkages: Strategic Plan

Area(s) of Responsibility: Flood Protection and Natural Systems

Alternative(s): The alternative is to delay repairs which could result in additional costs due to the age of the structures.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): Funding is requested annually for regular scheduled hydraulic cylinder/actuator refurbishing at District structures and electric actuator replacement or repair. Due to the age of the structures, the cost of each refurbished cylinder is increasing as well as the number of cylinders failing. Funding for future years pending Governing Board approval through the annual budget process.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): No other project costs associated with this request have been identified.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): To be determined.

Anticipated Additional Operating Costs/Continuing: To be determined.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$100,000	$100,000	$100,000	$100,000	$100,000

Program: Operation and Maintenance of Works and Lands

Activity: Works

Project Title: Programmable Logic Controller (PLC) Upgrades on Structures

Type: Structure Enhancements

Physical Location: Remotely Operable Structures in District's 16-County Region

Square Footage/Physical Description: District-owned Flood Control and Water Conservation Structures

Expected Completion Date: 09/2020

Historical Background/Need for Project: PLC and communication upgrades allow better control of structures for data collection and eventual automation of selected systems, which is an objective of the District's Structure Operations. In addition, these upgrades will reduce employee trips to structures to monitor battery condition, fuel levels, and emergency generators.

System controls information, including emergency generator run control, battery voltage, and liquefied petroleum (LP) gas levels, assists Structure Operations in conserving fuel and lowering maintenance costs by shutting down generators when the structure is not being operated, and allows the ability to store data used during automatic operations. Also, addition of Internet Protocol (IP) modems improves the reliability of the communication systems. Some structures may require new PLC, new modems, improved programming, new electrical panels, and Supervisory Control And Data Acquisition (SCADA) programming. Depending on the type and condition of the structure, different components may need to be replaced to accomplish the improved operation and monitoring. SCADA screen changes may be needed to view the new data that will be accessible with these upgrades.

Many structures improved in FY2017-18 will require new PLC, new electrical panels, and communication devices. It is expected that between eight and ten structures can be improved each fiscal year.

Plan Linkages: Strategic Plan

Area(s) of Responsibility: Flood Protection and Natural Systems

Alternative(s): The alternative would be to keep the structures as is, yielding no benefits to the reduction of manual operations.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The estimated cost of the purchase and installation of equipment for PLC upgrades for the District's remotely operable structures is $400,000 as outlined below. Funding for future years pending Governing Board approval through the annual budget process.

Prior Years - $100,000
FY2017-18 - $100,000
FY2018-19 - $100,000
FY2019-20 - $100,000

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): No other project costs associated with this request have been identified.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this project are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: To be determined.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$100,000	$100,000	$100,000	$0	$0

Program: Operation and Maintenance of Works and Lands

Activity: Works

Project Title: Thirteen-Mile Run Structure System Replacement

Type: Structure Replacements/Major Refurbishments

Physical Location: Hillsborough County at Lake Kell, Keene, Hanna, and Stemper

Square Footage/Physical Description: Eight District-owned Water Conservation Structures

Expected Completion Date: 09/2022

Historical Background/Need for Project: There are eight District-owned water conservation structures within the Thirteen-Mile Run watershed, located in Hillsborough County. In 2010, in direct response to lake residents' concerns, the District began a re-evaluation process of the system's structure operation guidelines. As a result, the District, cooperatively with the County, commissioned a study titled Thirteen-Mile Run Control Structure Operations Assessment project. In 2012, after taking into consideration report results, minimum flows and minimum water levels (MFLs) requirements and lake residents' requests, a draft operational guideline was completed and testing began. The testing included a temporary water control structure placed in the conveyance between Lakes Hanna and Stemper. In 2014, after peer review and public evaluation, the District finalized operation guidelines for the Thirteen-Mile Run structure system. In order to meet the operational requirements of the approved guidelines, there has been a dramatic increase in the number of manual gate operations.

These water control structures are manual stop log structures which consist of a concrete frame with channel iron inserts, into which wood boards are inserted. These boards are six inches in width and approximately 12 feet in length. The operation of such a structure requires two District personnel to remove or insert boards. The boards often leak and water levels can only be adjusted in six-inch increments, making it difficult to accurately meet operational requirements. Manually removing 12-foot boards often involves personnel having to enter the conveyance, posing a safety risk during high water events.

Replacement of the wooden board structures will ensure the District's ability to meet the requirements of the structure operation guidelines, guaranteeing more accurate and timely water level adjustments. During high volume rain events, this will allow the District to aid lake residents in reducing the frequency of flooding. There would be a reduction in the need for site visits, as the replacement gates would allow for fewer adjustments, directly reducing operational costs and risks to personnel (e.g., 89 manual gate operations made during the rainy season of 2014).

Plan Linkages: Strategic Plan

Area(s) of Responsibility: Flood Protection and Natural Systems

Alternative(s): The alternative would be to keep the structures as is, yielding no benefits to the reduction of manual operations and improved safety risks discussed above.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The estimated cost to replace all eight water conservation structures is $1,216,000. Funding for future years pending Governing Board approval through the annual budget process.

Prior Years - $86,000: Design of Lake Hanna and Stemper
FY2017-18 - $250,000: Final design, permitting, and start of construction of Lake Hanna; final design of Stemper

FY2018-19 - $350,000: Final design, permitting of Keene 2 and Nettles; complete construction of Lake Hanna and Stemper
FY2019-20 - $250,000: Final design, permitting of Keene 1, Sherry's Brook and Keene 3; construction of Keene 2 and Nettles
FY2020-21 - $280,000: Construction of Keene 1, Sherry's Brook and Keene 3

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): No other project costs associated with this request have been identified.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): To be determined.

Anticipated Additional Operating Costs/Continuing: To be determined.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$250,000	$350,000	$250,000	$280,000	$0

Program: Operation and Maintenance of Lands and Works

Activity: Works

P**roject Title:** Tampa Bypass Canal Weir Gate Remote Operation

Type: Structure Enhancements

Physical Location: Tampa Bypass Canal: Structures S160, S161 and S162

Square Footage/Physical Description: Nine Weir Gates on the Three Structures of the Tampa Bypass Canal

Expected Completion Date: 09/2019

Historical Background/Need for Project: The Tampa Bypass Canal gates have large upward opening gates for flood control. Each gate has several manual weirs (downward opening) gates for control of water levels during non-flooding. Four of these gates are controlled remotely by Tampa Bay Water. The remaining gates are manually operated gates, causing it to be difficult at times to maintain water elevations. Remote operation of these nine manual weir gates will reduce the need to operate the large upward opening gates as often; reducing the cost of operating. It is proposed that Tampa Bay Water will operate all weir gates once remotely operable.

Plan Linkages: Strategic Plan

Area(s) of Responsibility: Flood Protection

Alternative(s): The alternative would be to keep the structures as is, yielding no benefits to the reduction of manual operations discussed above.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The estimated cost of the project is $500,000. Funding for the project described below. Funding for future years pending Governing Board approval through the annual budget process.

FY2017-18 - $200,000: Design, permitting and start of construction
FY2018-19 - $300,000: Completion of construction

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): No other project costs associated with this request have been identified

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this project are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: To be determined.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$200,000	$300,000	$0	$0	$0

Program: Operation and Maintenance of Works and Lands

Activity: Works

Project Title: Manatee Protection Systems at Lake Tarpon and Tampa Bypass Canal

Type: Structure Enhancements

Physical Location: Lake Tarpon, Pinellas County and Rocky Creek Watershed system; and Tampa Bypass Canal Structure S160

Square Footage/Physical Description: Four-gated Lake Tarpon Outfall Structure S551 controlling lake level and Tampa Bypass Canal Structure S160.

Expected Completion Date: 09/2022

Historical Background/Need for Project: Lake Tarpon structure S551 controls the lake level and discharges to Safety Harbor through a 3.4-mile canal. Normally, this structure is only open when the water level upstream of the structure is higher than downstream. At high tide, the District does not discharge water when tide or storm surge drives the downstream level higher than the upstream, so manatees do not typically become caught in the gate when it is closing. However, at high tidal surge, manatees have entered the lake through the structure. When temperatures cool, the manatees can become stressed and require rescue. In 2016, three manatees required rescue. The United States Army Corps of Engineers has notified the District that an updated operating manual for the structure will require the District to change its operations for protection of the manatees, and the Florida Fish and Wildlife Conservation Commission has requested that the District install manatee protection systems. There are several barriers being tested at the St. Johns River and South Florida water management districts, but require weekly cleaning. Other deterrents are under trial with no results available at this time. A thorough analysis will be done to choose and customize a design to test on Lake Tarpon. Once the manatee barriers are tested on the Lake Tarpon structure, installation can be planned on the S160 Tampa Bypass Canal structure.

Plan Linkages: None

Area(s) of Responsibility: Flood Protection and Natural Systems

Alternative(s): The alternative would be to keep the structure as is, yielding no manatee protection benefits and possibly causing harm or fatalities.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The estimated cost for the manatee protection systems is $650,000. Funding for future years is pending Governing Board approval through the annual budget process.

FY2017-18 - $150,000 for design phase and installation of pressure sensors on two gates at Lake Tarpon
FY2018-19 - $100,000 for installation of pressure sensors on four gates at Lake Tarpon and installation of one barrier at Lake Tarpon
FY2019-20 - $200,000 for installation of barrier or other deterrent on Lake Tarpon
FY2020-21 - $100,000 for completion of Lake Tarpon barrier
FY2021-22 - $100,000 for installation of system on one gate at Tampa Bypass Canal

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): No other project costs associated with this request have been identified.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this project are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: To be determined.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$150,000	$100,000	$200,000	$100,000	$100,000

Program: Operation and Maintenance of Works and Lands

Activity: Works

Project Title: Lake Bay Water Conservation Structure Replacement

Type: Structure Replacements/Major Refurbishments

Physical Location: Hillsborough County, Lake Bay Structure

Square Footage/Physical Description: Two-gated Structure controlling lake levels.

Expected Completion Date: 09/2018

Historical Background/Need for Project: Lake Bay's current operable gated structure was constructed in 1990. The structure consists of two steel gates, each 9 feet wide by 2 feet high, which are mounted to a headwall that joins retaining walls. The gates are accessed for maintenance by a walkway mounted downstream of the structure. The older steel is showing signs of rust and frequently binds during remote operation, requiring staff to manually operate the gate to free it. In addition, the concrete structure is showing corrosion due to turbulent water flow. This project will replace the existing gates with lighter aluminum gates that have corrosion-resistant guides to prevent binding. The concrete will be repaired or replaced if needed.

Plan Linkages: Strategic Plan

A**rea(s) of Responsibility:** Flood Protection

Alternative(s): The alternative would be to keep the structure as is, yielding no benefits to the reduction of maintenance costs.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The estimated cost of design and construction for the project is $200,000.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): No other project costs associated with this request have been identified.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this project are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: To be determined.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$200,000	$0	$0	$0	$0

Program: Operation and Maintenance of Works and Lands

Activity: Works

Project Title: Structure S159 Major Repairs

Type: Structure Refurbishments/Repairs

Physical Location: Hillsborough County, Tampa Bypass Canal Structure S159

Square Footage/Physical Description: Single structure with three hydraulic gates located at the floodway of the Tampa Bypass Canal

Expected Completion Date: 06/2019

Historical Background/Need for Project: The Lower Hillsborough Flood Detention Area (LHFDA) and the Tampa Bypass Canal (TBC) were constructed by the United States Army Corps of Engineers (USACE) in 1981 to alleviate flooding in the Tampa area. S159 is the structure at the head of the TBC which allows water to move from the LHFDA to the TBC and to the Palm River. S159 is a three-bay reinforced, concrete ogee weir structure with hydraulically-powered hoist machinery that operates three steel vertical-lift gates. The structure is founded over concrete-filled steel pipe pilings. Reinforced concrete end abutments and two piers support a reinforced concrete slab service bridge. Four columns extend up from the abutments and piers to support the operating platform and the gate hoists. The sheet piling/concrete walls have shifted causing water to seep through the concrete joints. This has been noted in the USACE inspections as an issue to monitor and repair. At the downstream side of the spillway, dissipation blocks slow the rate of the water entering the canal, reducing turbulence that could damage the foundation. Previous underwater inspections have shown that these blocks are eroded and in need of repair. The project is to design and repair the wingwalls and dissipation blocks which will prevent further damage that could impair the ability of the structure to convey the necessary floodwater.

Plan Linkages: Strategic Plan

Area(s) of Responsibility: Flood Control

Alternative(s): The alternative would be to keep the structure as is, yielding no improvement to the useful life of the structure.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The estimated cost of the project is $110,000. Future funding needs will be identified once the geotechnical investigation and design phases are complete and a full cost estimate can be created.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): For FY2017-18, $70,000 is budgeted for a geotechnical investigation of the structure wingwalls.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this project are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: No additional continuing operating costs are anticipated.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$110,000	$0	$0	$0	$0

Program: Operation and Maintenance of Works and Lands

Activity: Works

Project Title: Wysong Water Conservation Structure Refurbishment

Type: Structure Replacements/Major Refurbishments

Physical Location: Citrus County, Wysong Dam structure located on the Withlacoochee River

Square Footage/Physical Description: Wysong Dam

Expected Completion Date: 06/2020

Historical Background/Need for Project: The Wysong Dam is essentially an adjustable-crest weir located in the Withlacoochee River. It is raised or lowered as needed to set overflow elevations in order to maintain an optimum upstream water level in the river. The existing dam configuration was built in 1990 and consists of air bags that raise and lower the steel gates. The air bags are leaking, requiring daily filling by the compressor located in the control room. Also, the galvanized steel gates are showing signs of severe corrosion. This project involves developing a dewatering and repair plan, and design, and construction of the repairs.

Plan Linkages: Strategic Plan

Area(s) of Responsibility: Natural Systems

Alternative(s): The alternative would be to keep the structure as is, risking failure of the lift system and the inability to control elevations.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The estimated cost of the project is $870,000. Funding for future years pending Governing Board approval through the annual budget process.

FY2017-18 - $70,000: Investigation and design of the repairs
FY2018-19 - $800,000: Construction

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): No other project costs associated with this request have been identified.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this project and are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: No additional continuing operating costs are anticipated.

FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22
$70,000	$800,000	$0	$0	$0

Consolidated Annual Report

March 1, 2018

Alternative Water Supplies

2018 Annual Report

Southwest Florida
Water Management District

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Introduction

Where Water Resource Caution Areas have been designated, Section 373.707(2), Florida Statutes (F.S.), requires the governing boards of the water management districts to include in their annual budgets an amount for the development of alternative water supply systems, including reclaimed water systems. The section, as well as 2005 legislation related to the Water Protection and Sustainability Trust Fund (Subsection 373.707(8)(n), F.S.), further requires that each district submit an annual alternative water supply report to the Governor, the President of the Senate, and the Speaker of the House of Representatives by March 1 of each year. This report describes all funded projects and accounts for funds provided through grants, matching grants, revolving loans and the use of Southwest Florida Water Management District (District) lands or facilities. The District has designated Water Resource Caution Areas and has implemented alternate water supply funding pursuant to the Florida Statutes. This report is submitted pursuant to the related statutes (Sections 373.707, 373.036, and 403.890, F.S.). Because of the unique organization of the District and its past accomplishments in the areas of water conservation and alternative water source development, the following is provided as background information.

Background

The District has been providing local funds for regional water resource-related projects since its creation in 1961. Originally, the focus of the District had been on funding flood control projects. In the late 1980s, the priorities began to shift to the identification and funding of projects that focus on water conservation and the development of alternative water sources. Currently, staff and financial resources are focused on issues of water quality, natural systems improvement, flood protection and water supply including water conservation and alternative water source development.

Before the late 1980s, participation in local water resource projects, both financial and staff support, was primarily driven by requests from local governments. Recognizing the ability to support local governments by providing solutions to the growing issues surrounding water supply, the District adopted a more proactive role in addressing local non-regulatory water issues. In response to the need for a set system for receiving project assistance requests and criteria regarding timing, project eligibility, funding and other conditions for participation, the *Cooperative Funding Initiative* was established in recognition of the growing need for a structured approach to maximize the District's effectiveness in choosing and funding water resource projects and budgeting for their completion.

Prior to mid-2011, the District was unique among Florida's water management districts in that, beyond the similar structure of the governing boards, it had eight basins with jurisdictional boundaries encompassing the major watersheds making up the District. Each basin included a Basin Board which allocated funding to projects within that basin. In 2011, the structure of the District was changed to be consistent with the other water management districts, with the Governing Board taking over the responsibilities of the Basin Boards, including the funding of alternative water supply projects. Presently, the Governing Board continues to provide funding for alternative water supply development through the *Cooperative Funding Initiative*.

The District is involved in many other programs besides those specifically defined in the statute, which are also saving significant amounts of water. Some program examples are leak detection, drought tolerant landscaping, ultra low-flow toilet rebates, water saving ordinance development, industrial and residential water audits, landscape irrigation system efficiency, the Facilitating Agricultural Resource Management Systems (FARMS) Program, and many others, including major public education efforts.

This Alternative Water Supply Report provides a background summary of the District's current and historical accomplishments in alternative water supply development, as well as a few areas of water conservation that will provide the recipients of this report with an understanding of the effectiveness of the District's programs.

Figure 1. SWFWMD Map

Cooperative Funding Initiative

A structured program for funding requests for local water resource projects was established in the District in 1987. Since then, the District has continued to offer cooperative funding assistance for water supply projects, and to refine its water supply funding policies in response to changing goals and priorities.

The District's Cooperative Funding Initiative (CFI) program is a key program for building water supply partnerships. This program allows local governments to share costs for projects that assist in creating sustainable water resources, enhance conservation efforts, or meet other defined water management goals. The CFI generally covers up to 50 percent of the cost of eligible water supply projects. All CFI funding decisions are made by the Governing Board. As a result of the District's significant water supply funding investment in local and regional cooperators, the District has made noteworthy strides in the areas of water conservation and alternative water sources development.

Summary of Reuse Projects

The District is a national leader in developing water reuse as an alternative water supply. The CFI program and other District cost sharing programs have been a key mechanism for promoting the development of reclaimed water infrastructure. Table 1 shows the significant historical financial contributions and alternative water quantities made available as a result of District participation in approximately 370 reuse projects since fiscal year (FY) 1987.

Table 1. Summary of Reuse Projects

District Funded Reclaimed Water Projects	Reuse to be Provided (mgd)	Water Resource Benefit (mgd)	Storage Capacity (mg)	Miles of Pipe	Budgeted District Funding (up to FY2018)	Total Project Cost
369	174	125	1,356	1,001	$421,646,000	$937,983,000

Sources: Reuse and Conservation Projects Summary Report FY2012 (SWFWMD, 2011), FY2013 through FY2018 District budgets.
Note: Budgeted funding total is per Governing Board and Basin Board annual budgets from FY1987-FY2018 and does not include future funding commitments.

New Water Sources Initiative

In 1993, the District Governing Board recognized the need to accelerate the development of alternative water sources to address the water resource impacts identified in the Southern Water Use Caution Area (SWUCA) and the Northern Tampa Bay Water Use Caution Area. The Governing Board initiated the New Water Sources Initiative (NWSI) program with a $10 million commitment beginning in FY1994. The program solicited requests for large, regionally significant projects that would develop non-traditional (other than groundwater) sources to replace existing use or provide for future growth. This program was in addition to the Cooperative Funding Initiative, and continued through FY2007 following the completion of the Tampa Bay Water Partnership Agreement funding obligations.

Eligible NWSI projects generally received 25 percent of their funding from the District's Governing Board, 25 percent from appropriate Basin(s) and the remaining 50 percent from the local cooperator(s). The 22 completed projects funded through the NWSI program were administered pursuant to legislative directives to promote and fund alternative source development. The NWSI projects received more than $60 million in District funding to provide as much as 206 million gallons per day (mgd) of water resource benefits, reduce groundwater withdrawals, rehydrate stressed lakes and wetlands, increase groundwater recharge, enhance wildlife habitat and improve flood control.

Water Supply and Resource Development Projects

As a means to facilitate the implementation options identified in the *District Regional Water Supply Plan* (SWFWMD, 2001) or similar projects, the Governing Board and the previous Basin Boards initiated another funding opportunity in FY2001 to address large-scale water supply and resource development projects with multiple cooperators and regional benefits. The Water Supply and Resource Development (WSRD) projects received funding from the Governing Board, multiple Basins, and local cooperators. Depending upon the size and scope of the project, some WSRD projects also involved additional state and federal funding. The funding shares were reflective of the proportional benefits anticipated to be realized by each of the basins, and the collective Basin Board funding was then matched by the Governing Board. As such, eligible WSRD projects generally received 25 percent of funding from the District's Governing Board, 25 percent from the collective Basin Boards and the remaining 50 percent from local cooperators. The WSRD funding mechanism was replaced by District Initiatives after the dissolution of the Basin Boards in 2011.

Table 2 identifies the list of ongoing active WSRD projects, the total project costs, District funding contribution commitment and water provided. As with the Cooperative Funding Initiative and the NWSI, some projects identified in the table may fall outside the requirements of Florida Statutes as to what is considered an alternative source, yet the information is important in understanding the District's role in the area of funding water resource protection and development projects.

Table 2. Active Water Supply and Resource Development Projects

Project (project number)	Local Cooperator	Total Cost ($)	SWFWMD Contribution* ($)	Water Provided (mgd)
Facilitating Agricultural Resource Management Systems "FARMS," includes 182 different projects (H017)	State of Florida, FDACS, Variety of Ag. Operations, District	$65,600,000	$28,700,000	27.0
Withlacoochee Watershed Initiative (H066)	District	$3,350,000	$3,350,000	TBD
TECO's Polk Power Station Reclaimed Water Interconnects to Lakeland/Polk County/Mulberry (H076)	Tampa Electric Co.	$96,960,725	$49,203,020	10.0
Flatford Swamp Hydrologic Restoration\Implementation (H089)	TBD.	$39,225,000	$39,000,000	6.0
Lower Hillsborough River Recovery Strategy Implementation (H400)	City of Tampa	$14,551,010	$6,413,480	TBD
Polk Regional Water Cooperative Partnership, Suite of Projects (H094**)	District	$320,000,000	$160,000,000	30.0
	Totals	**$539,686,775**	**$286,666,500**	

*Totals may represent multiyear funding, and may include contributions from multiple Boards & Funds (WPSTF, WRAP and others). Table includes only "Active" projects as of October 1, 2017 (does not include completed projects).

**Project H094 represents future funding totals which will enable a suite of future projects to supply at least 30 mgd for anticipated total cost of $320,000,000.

District Initiatives

District Initiatives are funded in cases where a project is of great importance or a regional priority. Funding may be provided as 50 percent cooperative shares for regional water supply development projects similarly to the NWSI and WSRD programs. The District can also increase its percentage match and, in some cases, provide total funding for the project. Examples of these initiatives include Water Resource Development projects such as: (1) the Quality of Water Improvement Program (QWIP) to plug deteriorated, free-flowing wells that waste water and cause inter-aquifer contamination; (2) the Water Loss Reduction Program to conserve water by having District staff inspect meters and detect leaks in public water system pipelines; (3) data collection and analysis to support major District initiatives such as the MFL program; (4) the FARMS program and other various agricultural research projects designed to increase the water-use efficiency of agricultural operations; and (5) WRD investigations and MFL Recovery projects which may not have local cooperators.

Springs Restoration

DEP Springs Restoration funding is a special legislative appropriation that has provided revenue for protection and restoration of major springs systems. The District has allocated Springs Restoration funding to implement projects to restore aquatic habitats, to reduce groundwater withdrawals and nutrient loading within first-magnitude springsheds, and to improve the water quality and quantity of spring discharges. Projects include the reestablishment of aquatic and shoreline vegetation near spring vents, installation of wastewater infrastructure to allow for the removal of septic tanks and increase reclaimed water production and implementation of other BMPs within springshed basins. The first year of the appropriation was FY2013, when the District received $1.1 million from DEP to allocate for springs restoration. To date, the District has been allocated over $41.6 million in Springs Restoration funding from DEP, including $9.3 million for FY2018. Projects with immediate water supply benefits funded through DEP Springs funding include: two industrial reuse projects to deliver reclaimed water to the Duke Energy power generation complex from the City of Crystal River and from Citrus County Utilities (N358 and P130); and the Hernando County US-19 Reclaimed Water Transmission Project (N696). Springs funding has also been allocated for several septic to sewer and wastewater improvement projects which can improve reclaimed water availability.

FARMS Program

The **Facilitating Agricultural Resource Management Systems (FARMS)** Program is an agricultural best management practice (BMP) cost-share reimbursement program that involves both water quantity and water quality. This public/private partnership program was developed by the District and the Florida Department of Agriculture and Consumer Services in 2003. The purpose of the FARMS Program is to implement production-scale agricultural BMP projects that will provide water resource benefits including: water quality improvement; reduction of Upper Floridan aquifer withdrawals; conservation; and restoration or augmentation of the area's water resources and ecology.

Water Protection and Sustainability Trust Fund

Large areas of Florida do not have sufficient traditional water resources to meet the future needs of the state's growing population and the needs of the environment, agriculture and industry. In 2005, the Florida Legislature recognized the need to accelerate the development of alternative water sources, and consequently passed legislation creating the Water Protection and Sustainability Trust Fund (WPSTF). The legislation focused on encouraging cooperation in the development of alternative water supplies and improving the linkage between local governments' land use plans and water management districts' regional water supply plans.

The state of Florida allocated $100 million in FY2005-2006, with $25 million allocated to the District. In FY2007 the state funding was $60 million, with $15 million allocated to the District. In FY2008 the state funding was $51.4 million, with $13 million allocated to the District. In FY2009 the state funding was reduced due to economic conditions, with $750 thousand allocated to the District. From FY2010 to FY2018 there were no state funds allocated for WPSTF. Annual WPSTF funding may potentially resume pending availability in future state budgets. Funding will be expended on a reimbursement basis for construction costs of alternative water supply development projects as defined in the legislation. The legislation also requires that a minimum of 80 percent of the WPSTF funding must be related to projects identified in a district water supply plan. The District's Regional Water Supply Plan (RWSP) is utilized in the identification of the majority of WPSTF-eligible projects.

Projects were evaluated for funding based on consideration of the 12 factors described in Subsections 373.707(8)(f) and (g), F.S., and additional District evaluation factors as appropriate. Funding for each project is equivalent to up to 40 percent of construction costs. Projects funded through this program may also receive funding from other sources such as the Governing Board, multiple Basin Boards, federal agencies and local cooperators.

The state did not allocate any WPSTF-related funds in FY2018. The District anticipates that, should the state resume funding, projects will be identified through the District's ongoing cooperative funding programs, which have been funding alternative water supply development for two decades. Additional projects, developed in cooperation with regional water supply authorities and their member governments, are also anticipated to be identified in the future to be eligible to receive funds. Table 3 identifies the list of all FY2006-FY2009 WPSTF projects, including District funding, cooperator funding, funding from other sources as well as the amount of water provided. The scope and breadth of the WPSTF projects is immense, as evident by the more than 60 mgd of water provided of which more than 40 mgd in potable water supplies, and the more than 20 mgd in reclaimed water supply that have been funded to date. Some projects identified in the table are also listed in other tables, depending upon the source of District funding. The Appendix of this report contains a brief description of the projects funded under the WPSTF.

Table 3. Water Protection and Sustainability Trust Fund Projects

Project (project number)	Local Cooperator	State WPSTF Contribution & Fiscal Year ($ & FY)	Total* SWFWMD Contribution ($)	Total* Local Cooperator Contribution ($)	Total Project Cost ($)	Water Provided** (mgd)
Peace River Regional Reservoir Expansion (F032)	PRMRWSA	$7,095,976 FY2006 $2,480,945 FY2008	$29,053,918	$38,418,817	$77,049,655	14.70
Peace River Regional Facility Expansion (F033)	PRMRWSA	$12,161,596 FY2006 $3,756,693 FY2008	$28,109,508	$46,115,403	$90,143,200	included in F032 amounts above
Lake Hancock Outfall Structure P-11 (H009)	SWFWMD	$1,000,000 FY2006	$4,500,000	$0	$5,500,000	TBD
Charlotte County Regional Reclaimed Water (H027)	Charlotte County	$400,000 FY2006 $680,010 FY2008	$3,084,995	$3,084,995	$7,250,000	1.27
Pasco County SE Regional Reclaimed Water (H041)	Pasco County	$239,405 FY2006	$1,268,391	$1,629,512	$3,137,308	TBD
PRMRWSA Reg Integ Loop Ph2 (H051)	PRMRWSA	166,031 FY2008	$7,616,984	$7,616,985	$15,400,000	TBD
PRMRWSA Reg Integ Loop Ph3a (H052)	PRMRWSA	$166,031 FY2008	$13,659,104	$13,659,105	$27,484,240	TBD
Pasco Co. SR52 E/W Reclaimed Interconnect (H055)	Pasco County	$1,240,000 FY2008	$8,680,000	$8,680,000	$18,600,000	6.00
Pasco Co. Boyette Reuse Reservoir (H056)	Pasco County	$284,450 FY2008	$12,631,530	$26,284,020	$39,200,000	TBD
Tampa Bay Water System Configuration II (H065)	Tampa Bay Water	$506,854 FY2006 $15,000,000 FY2007	$111,371,573	$120,815,912	$247,694,339	25.00
Pasco Co. Shady Hills Reclaimed Interconnect (H067)	Pasco County	$592,000 FY2008	$6,263,246	$6,263,247	$13,118,493	TBD
Peace River Regional Loop Charlotte to Punta Gorda (H069)	PRMRWSA	$43,541 FY2006	$11,627,789	$10,124,926	$21,796,256	TBD
Charlotte Co. East/West Connection (H085)	Charlotte County	$90,900 FY2006 $80,000 FY2008	$1,314,550	$1,314,550	$2,800,000	TBD
Manatee Co. SW 10 mg Reclaimed Water Tank (H093)	Manatee County	$635,752 FY2006 $2,072 FY2008	$3,270,730	$3,270,730	$7,179,284	TBD

Project (project number)	Local Cooperator	State WPSTF Contribution & Fiscal Year ($ & FY)	Total* SWFWMD Contribution ($)	Total* Local Cooperator Contribution ($)	Total Project Cost ($)	Water Provided** (mgd)
Bradenton Potable ASR (K114)	City of Bradenton	$56,400 FY2006	$1,199,121	$1,199,122	$2,454,643	0.41
North Sarasota County Reclaimed ASR's (K269)	Sarasota County	$164,864 FY2006	$1,521,518	$1,521,518	$3,207,900	Storage
Lake Tarpon ASR (K422)	Pinellas County	$105,166 FY2006	$1,535,417	$1,535,417	$3,176,000	TBD
St. Pete NW&SW Reuse Tanks, Pumps, Telemetry (K847)	City of St. Petersburg	$779,000 FY2008	$4,110,500	$4,110,500	$9,000,000	Storage
Lake Placid Reuse (L153)	City of Lake Placid (REDI)	$117,420 FY2006	$845,154	$281,718	$1,244,292	0.09
Brooksville US 41 Service Area Reuse System (L169)	City of Brooksville	$371,311 FY2006	$2,358,914	$2,358,915	$5,089,140	1.68
Clearwater Morningside Area Reclaimed Water Trans& Dist. (L254)	City of Clearwater	$380,380 FY2006	$1,059,491	$1,059,491	$2,499,362	0.45
Connerton Reclaimed Water Transmission Storage (L270)	Pasco County	$216,632 FY2006	$1,322,931	$1,322,931	$2,862,494	2.00
Hillsborough County Lithia-Pinecrest Reuse Water Transmission (L294)	Hillsborough County	$362,520 FY2006	$933,480	$2,304,000	$3,600,000	2.66
Inverness Reclaimed Water Transmission Main (L468)	Citrus County	$267,300 FY2006	$871,350	$871,350	$2,010,000	1.41
Polk County North East Regional Reclaimed Water Storage (L475)	Polk County	$134,704 FY2006	$782,648	$1,877,560	$2,794,912	Storage
City of Sarasota Reuse/Payne Park (L500)	City of Sarasota	$85,211 FY2006	$170,422	$170,422	$426,055	0.10
Aqua Utilities Lakewood Ranch Reuse (L522)	Aqua Utilities	$54,644 FY2006	$154,828	$154,828	$364,300	0.57
Palmetto Reclaimed ASR (L608)	City of Palmetto	$72,000 FY2006 $136,000 FY2008	$1,066,000	$1,066,000	$2,340,000	Storage
Englewood WD Stillwater Reuse Trans. (L652)	Englewood Water District	$40,244 FY2006	$115,669	$115,669	$271,582	0.10
City of Clearwater Skycrest Reclaimed Trans., Distr., Pumping & Storage (L695)	City of Clearwater	$1,599,000 FY2008	$4,618,224	$4,618,224	$10,835,448	0.52
City of Dunedin Reuse Trans. & Dist. (L697)	City of Dunedin	$203,000 FY2006 $203,770 FY2008	$861,636	$861,636	$2,130,042	0.21

Project (project number)	Local Cooperator	State WPSTF Contribution & Fiscal Year ($ & FY)	Total* SWFWMD Contribution ($)	Total* Local Cooperator Contribution ($)	Total Project Cost ($)	Water Provided** (mgd)
Pasco Overpass Rd. Reuse Trans. (L729)	Pasco County	$8,160 FY2006	$700,920	$700,920	$1,410,000	TBD
South Brooksville Reuse Phase II (L781)	Levitt and Sons	$75,740 FY2006	$222,130	$222,130	$520,000	TBD
On Top of the World Marion Reclaimed Water (L786)	Sidney Colen Ltd	$155,800 FY2008	$1,021,100	$1,021,100	$2,198,000	0.79
Plant City Sydney Road Reuse (L816)	City of Plant City	$353,630 FY2008 $250,000 FY2009	$2,589,100	$2,933,270	$6,126,000	0.55
City of Oldsmar Reclaimed Distr. & Telemetry (L821)	City of Oldsmar	$76,000 FY2008	$295,500	$295,500	$667,000	0.07
City of Dade City Reclaimed (L823)	City of Dade City	$59,621 FY2008	$1,892,409	$1,892,410	$3,844,440	0.50
City of Zephyrhills Reclaimed Extension (L824)	City of Zephyrhills	$16,547 FY2008	$42,045	$42,045	$100,637	0.01
Englewood Park Forest Reuse (L869)	Englewood Water District	$5,000 FY2008	$117,500	$117,500	$240,000	0.04
Aqua Utilities Lakewood East Reuse (L874)	Aqua Utilities	$167,400 FY2008	$1,050,587	$1,050,587	$2,268,574	1.15
Haines City Southern Reuse (N065)	Haines City	$246,328 FY2006 $2,072 FY2007 $361,880 FY2009	$1,468,971	$1,468,972	$3,548,223	0.60
	Totals	**$53,750,000**	**$275,379,833**	**$322,451,937**	**$651,581,819**	**>60.88**

*Totals may represent multiyear funding, and may include past, current and future contributions from multiple Boards and sources (does not include WPSTF funding).
**In order to be consistent with other water management districts and DEP, the water provided equals water supplied by projects and does not represent replaced water quantities.
Totals are per Board approved budgets and do not include District project management expenses.
Total project cost estimates are as of October 1, 2017 and may be different than prior cost estimates.

Partnership Agreements

The Northern Tampa Bay New Water Supply and Groundwater Withdrawal Reduction Agreement (NTB Partnership Agreement) provided for the development of new and alternative water supplies and reduction of pumpage from Tampa Bay Water's Northern Tampa Bay wellfields.

NTB Background

Floridians rely on groundwater, pumped from underground aquifers, as their principal water supply source. In the Tampa Bay region, an over-reliance on groundwater resulted in adverse environmental impacts to lakes, wetlands, and its ecology. This led to years of conflict between water regulators, water suppliers and property owners. Many of these conflicts were aired in administrative hearings and the court systems for years without resolution.

Seeking a cooperative solution to the region's water problems, the District collaborated with Tampa Bay Water (formerly known as the West Coast Regional Water Supply Authority), and its six member governments (Hillsborough County, Pinellas County, Pasco County, and the cities of Tampa, St. Petersburg, and New Port Richey) for the development of new water supplies and phased reduction of pumping from the 11 central system wellfields. Discussions of the plan began in 1997. After many months of negotiations, the "Partnership Agreement" was executed by all parties on May 27, 1998.

NTB Partnership Agreement

The Partnership Agreement had four objectives: (1) Develop at least 85 mgd of new water supply by December 31, 2007, of which 38 mgd must be produced by December 31, 2002; (2) Reduce groundwater pumpage at 11 wellfields from 158 mgd to 121 mgd by 2002 and to 90 mgd by 2008; (3) End existing and minimize future litigation; and (4) Provide funding to assist in the development of the new alternative supply.

The Partnership Agreement was completed in 2010 and met the objectives set forth. The Recovery Strategy required that groundwater withdrawals from TBW's Consolidated Wellfield system would be reduced to rates that could not exceed 90 mgd on a 12-month moving average basis by 2008. To compensate for this reduction in groundwater withdrawals, greater reliance would be placed on using alternative public water supplies, such as surface water and the seawater desalination facility.

In keeping with the intent of the Recovery Plan, TBW now obtains surface water supplies from the TBC, the Hillsborough and Alafia Rivers, maintains a 15.5 billion gallon offline reservoir, and maintains a 25 mgd capacity seawater desalination plant on Tampa Bay.

In 2010, the District adopted a second phase of recovery for the NTBWUCA, entitled the Comprehensive Environmental Resources Recovery Plan for the NTBWUCA (Rule 40D-80.073, F.A.C.), or the "Comprehensive Plan." Among other actions, the Comprehensive Plan requires TBW to assess the water resources of the area and identify any remaining unacceptable adverse impacts caused by the 90 mgd of groundwater permitted to be withdrawn from their wellfields. The plan also requires TBW to develop a plan to address any identified unacceptable adverse impacts by 2020. Some new projects could result from this analysis.

Additional Tampa Bay Water Project Agreements

In FY2006-FY2011 the District provided an additional $126 million in grant funding for the $247 million Tampa Bay Water System Configuration II Project, which developed 25 mgd of new surface water supplies.

A Partnership Agreement in Polk County

In 2012, the District began coordinating with Polk County on a Partnership Agreement (H094) that is modeled after the NTB Partnership Agreement. The Polk partnership agreement will provide financial assistance, permit coordination, development of new and alternative water supplies and the regionalization of water supplies in Polk County. The goal is to provide an annual average of at least 30

mgd in new alternative water supplies from eligible projects to be used by Polk and its municipalities by December 31, 2041.

FY2018 Annual Report Information

As defined in the Florida Statutes, alternative water supplies are "salt water; brackish surface and groundwater; surface water captured predominately during wet-weather flows; sources made available through the addition of new storage capacity for surface or groundwater; water that has been reclaimed after one or more public supply, municipal, industrial, commercial, or agricultural uses; the downstream augmentation of water bodies with reclaimed water; stormwater; and any other water source that is designated as nontraditional for a water supply planning region in the applicable regional water supply plan." Pursuant to the requirements of the statutes, the following tables and associated narrative identify alternative water supply projects, associated funding, and provide a short description of their benefits.

SWFWMD Budgeted Project Funding

Table 4 summarizes the total annual budgeted District funding for alternative water supply category projects for the past ten fiscal years (FY2009-2018). The funding of projects requiring large capital investments with construction spanning several years is usually spread out over multiple fiscal years to maximize annual funding availability for multiple regional projects and cooperators. Please note that the funding totals presented in the following sections are based on the approved FY2018 Budget, and may reflect updates to project costs from previous years. Funding totals are provided per Board approved budgets and do not include District project management expenses.

Note: The funding amounts shown, as in subsequent tables, represent only District related contributions; equal or exceeding matching funds are provided by the cooperator.

Funding Classification

Table 5 classifies the FY2009-2018 budgeted amounts into funding types. As indicated, the District's funding focus has been on matching programs.

Table 4. District Budgeted Amounts

Alternative Water Supply	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Reclaimed Wastewater	$25,751,413	$19,672,706	$17,088,388	$15,380,739	$19,294,703	$21,691,124	$21,824,760	$19,118,417	$12,075,819	**$10,768,312**
Surface Water/ Stormwater*	$621,675	$1,310,000	$115,000	$210,000	$250,000	$1,809,909	$2,100,000	$1,305,000	$1,920,000	**$1,462,947**
Desalination of Brackish Water	$12,570,948	$14,674,875	$5,674,256	$300,000	$5,417,120	$8,100,000	$16,005,355	$10,060,000	$12,713,050	**$17,575,000**
Indirect Potable Reuse	$0	$0	$1,056,999	$486,374	$893,125	$1,475,000	$1,554,000	$8,306,000	$2,617,910	**$10,827,500**
Desalination of Seawater	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
District Totals	**$38,944,036**	**$35,657,581**	**$23,934,643**	**$16,377,113**	**$25,854,948**	**$33,076,033**	**$41,484,115**	**$38,789,417**	**$29,326,779**	**$40,633,759**
Allocated WPSTF	$750,000	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
Grand Totals	**$39,694,036**	**35,657,581**	**$23,934,643**	**$16,377,113**	**$25,854,948**	**$33,076,033**	**$41,484,115**	**$38,789,417**	**$29,326,779**	**$40,633,759**

* Surface Water Projects included in funding totals beginning in FY2017

Table 5. Funding Classification

Funding Type	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Direct Grants	$0	$0	$0	$0	$2,000,000	$132,000	$0	$994,000	$1,244,550	**$1,000,000**
Matching Grants	$39,694,036	$35,657,581	$23,934,643	$16,377,113	$23,854,948	$32,944,033	$41,484,115	$37,795,417	$28,082,229	**$39,633,759**
Revolving Loans	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
Use of District Land/ Facilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
District TOTALS	**$39,694,036**	**$35,657,581**	**$23,934,643**	**$16,377,113**	**$25,854,948**	**$33,076,033**	**$41,484,115**	**$38,789,417**	**$29,326,779**	**$40,633,759**

Alternative Source Type: Wastewater Reuse

Table 6 lists Cooperative Funding Initiative, NWSI, WSRD and WPSTF reuse projects that will receive funding in FY2018. The table also identifies District funds allocated in FY2018 by the Governing Board, based on the District's FY2018 Budget. The total funding commitment represents previous and projected year funding by the District. Funding of projects requiring large capital investments with construction spanning several years is usually spread out over multiple fiscal years. Table 6 also includes the projected alternative supply (gallons per day) provided by the project. The Appendix of this report contains a brief description of the projects identified in Table 6.

Table 6. Alternative Source Type: Wastewater Reuse

Project Name	Project Number	FY2018 District Funding	FY2018 WPSTF	Total FY18 Funding	Total District Commitment (Multi-Year)**	Total Project Cost	Water Provided* (gpd)
Charlotte County Reclaimed Water Expansion - Phase 3	N556	$311,250	$0	$311,250	$4,715,000	$9,430,000	2,230,000
Braden River Utilities Reclaimed Water Transmission Line Project	N711	$150,000	$0	$150,000	$2,300,000	$4,600,000	1,000,000
Reclaimed Water - Pasco Starkey Ranch Reclaimed Water Transmission - Phase B	N743	$354,000	$0	$354,000	$955,000	$1,910,000	410,000
NERUSA Loughman and Ridgewood RW Transmission	N772	$1,002,000	$0	$1,002,000	$1,252,500	$2,505,000	345,000
Hillsborough County 19th Avenue Reclaimed Water Transmission Main	N776	$1,713,671	$0	$1,713,671	$2,713,671	$5,427,343	1,200,000
Pasco Starkey Ranch Reclaimed Water Transmission Project - Phase C	N791	$11,266	$0	$11,266	$456,800	$913,600	290,000
Pasco County River Edge Golf Course and Waters Edge Residential Reclaimed Water Project	N792	$1,050,000	$0	$1,050,000	$1,250,000	$2,500,000	400,000
Hillsborough County Reclaimed Water Sun City Golf Course Expansion	N804	$1,125,000	$0	$1,125,000	$2,250,000	$4,500,000	2,000,000
Hillsborough County Reclaimed Water Major User Connections	N817	$250,000	$0	$250,000	$500,000	$1,000,000	150,000
Pasco County Cypress Preserve Reclaimed Water Transmission Project	N837	$17,500	$0	$17,500	$175,000	$350,000	190,000
Polk County NERUSA CR 547 Reclaimed Water Transmission Project	N862	$50,000	$0	$50,000	$434,750	$869,500	377,000
Hillsborough County Summerfield Sports Complex Reclaimed Water	N863	$77,500	$0	$77,500	$77,500	$155,000	65,000
Polk County NERUSA Ernie Caldwell Blvd Reclaimed Water Transmission	N868	$1,056,500	$0	$1,056,500	$1,056,500	$2,113,000	414,000
Arcadia Golf Course Reclaimed Water Storage Reservoir	N881	$225,000	$0	$225,000	$225,000	$300,000	100,000
Haines City Reclaimed Water Tank and Pump Stations Design Project	N898	$225,000	$0	$225,000	$225,000	$300,000	Study
Braden River Utilities Reclaimed Water ASR Feasibility and Pilot	N912	$1,945,625	$0	$1,945,625	$2,997,500	$5,995,000	Storage
Polk County NERUSA FDC Grove Road Reclaimed Water Transmission	N918	$848,000	$0	$848,000	$848,000	$1,696,000	142,000
West Villages to Sarasota County South Reclaimed Water Transmission	N920	$356,000	$0	$356,000	$356,000	$712,000	250,000
Totals (18)		**$10,768,312**	**$0**	**$10,768,312**	**$22,788,221**	**$45,276,443**	**9,563,000**

**Total District commitment represents projects that have been or will be funded over multiple years and may include prior WPSTF, WRAP, SPRINGS or other funding.
*Represents the total water supply delivered upon project completion. Note: Table 6 does not include Indirect Potable Reuse projects which are included in Table 9.

Alternative Source Type: Surface Water and Stormwater

Table 7 identifies the surface water and stormwater supply projects that will receive funding in FY2018. The table also identifies the total funding commitment of the District, including previous funding and projected future funding by the District. As previously stated, funding ofprojects requiring large capital investments with construction spanning several years is spread out over multiple years. Table 7 also includes the projected alternative water supply provided by the projects. The Appendix of this report contains a brief description of the projects identified in Table 7.

Table 7. Alternative Source Type: Surface Water and Stormwater

Project Name	Project Number	FY2018 District Funding	FY2018 WPSTF	Total FY18 Funding	Total District Commitment (Multi-Year)**	Total Project Cost	Water Provided (gpd)
City of Bradenton Surface Water ASR-2	N435	$142,447	$0	$142,447	$2,350,000	$4,700,000	411,000
PRMRWSA Regional Integrated Loop System - Phase 3B	N823	$470,000	$0	$470,000	$14,300,000	$28,600,000	7,000,000
City of North Port ASR- Permanent Facilities	N833	$230,000	$0	$230,000	$340,000	$1,110,319	164,400
Bradenton Aquifer Protection Recharge Well	N842	$500,000	$0	$500,000	$2,500,000	$5,000,000	TBD
PRMRWSA Partially Treated Water ASR	N854	$120,500	$0	$120,500	$3,822,750	$7,645,500	Storage
Totals (5)		**$1,462,947**	**$0**	**$1,462,947**	**$23,312,750**	**$47,055,819**	**7,575,400**

**Total District commitment represents projects that have been or will be funded over multiple years, may include prior WPSTF, WRAP, SPRINGS or other funding.
* Represents the total water supply delivered upon project completion.

Alternative Source Type: Desalination of Brackish Water

Table 8 identifies the desalination of brackish water projects that will receive funding in FY2018. The table also identifies the total funding commitment of the District, including previous funding and projected future funding by the District. The funding of most projects requiring large capital investments with construction spanning several years is spread out over multiple fiscal years. Table 8 also includes the projected alternative water supply provided by the projects. The Appendix of this report contains a brief description of the projects identified in Table 8.

Table 8. Alternative Source Type: Desalination of Brackish Water

Project Name	Project Number	FY2018 District Funding	FY2018 WPSTF	Total FY18 Funding	Total District Commitment (Multi-Year)**	Total Project Cost	Water Provided (gpd)
City of Punta Gorda Groundwater RO***	N780	$6,575,000	$0	$6,575,000	$15,650,000	$32,200,000	4,000,000
Hydrogeological Investigation of LFA in Polk County	P280	$1,000,000	$0	$1,000,000	$12,000,000	$12,000,000	Study
Polk Regional Water Cooperative Partnership ****	H094	$10,000,000	$0	$10,000,000	$28,500,000	$28,500,000	TBD
Totals (3)		**$17,575,000**	**$0**	**$17,575,000**	**$56,150,000**	**$72,700,000**	**4,000,000**

****Project total for H094 represents only FY18 budgeted funding totals which will enable a suite of future projects to supply at least 30 mgd for anticipated total cost of $320 million.
*** Project total for N780 includes a brackish groundwater investigation funded as N600.
**Total District commitment represents projects that have been or will be funded over multiple years, may include prior WPSTF, WRAP, SPRINGS or other funding.
*Represents the total water supply delivered upon project completion.

Alternative Source Type: Indirect Potable Reuse

Table 9 identifies the indirect potable reuse projects that will receive funding in FY2018. The table also identifies the total funding commitment of the District, including previous funding and projected future funding by the District. Similar to the funding of other alternative water projects, the funding of projects requiring large capital investments with construction spanning several years is usually spread out over multiple fiscal years. Table 9 also includes the projected alternative water supply provided by the projects. The Appendix of this report contains a brief description of the projects identified in Table 9.

Table 9. Alternative Source Type: Indirect Potable Reuse

Project Name	Project Number	FY2018 District Funding	FY2018 WPSTF	Total FY18 Funding	Total District Commitment (Multi-Year)**	Total Project Cost	Water Provided* (gpd)
Clearwater Groundwater Replenishment Project Phase 3	N665	$8,000,000	$0	$8,000,000	$16,358,000	$32,716,000	2,400,000
Hillsborough/Tampa/Plant City/Temple Terrace Reclaimed Water Recharge Site Modeling Study Phase 3	N755	$200,000	$0	$200,000	$450,000	$900,000	N/A
South Hillsborough Aquifer Recharge Expansion (SHARE) - Phase 1	N855	$2,265,000	$0	$2,265,000	$4,850,000	$9,700,000	4,000,000
Haines City Reclaimed Water MFL Recharge & Advanced Treatment Feasibility	N888	$112,500	$0	$112,500	$250,000	$300,000	N/A
Polk County Reclaimed Water Recharge Study in Dover/Plant City WUCA & Northwest Polk Areas	N899	$250,000	$0	$250,000	$500,000	$1,098,000	N/A
Totals (5)		**$10,827,500**	**$0**	**$10,827,500**	**$22,408,000**	**$44,714,000**	**6,400,000**

**Total District commitment represents projects that have been or will be funded over multiple years, may include prior WPSTF, WRAP, SPRINGS or other funding.
* Represents the total water supply delivered upon project completion.

Conclusion

The District has developed an aggressive alternative water supply development program through the efficient utilization of the resources available to its Governing Board and provided by the Florida Legislature. The District is committed to identifying and assisting with effective solutions to the water resource problems by providing technical and financial support in developing alternative water supplies. The District has a long history of commitment to cooperative efforts with state and local governments, private industry, and the public at large through the sponsoring of research, conservation, natural system and water quality improvements and a special emphasis on the development of alternative water supplies. The District is confident in its mission to find and maintain adequate and ecologically sustainable water supplies within its boundaries.

Appendix (Projects with FY2018 Funding, as well as WPSTF* Projects)

Project Name: Peace River Regional Reservoir Expansion* (F032)
Type of Alternative Supply: Surface Water
Cooperator: Peace River Manasota Regional Water Supply Authority (PRMRWSA)
Locale: Desoto County
Project Description: An alternative water supply project to expand the surface water storage capacity of the PRMRWSA 's water supply facilities by constructing a 6- billion-gallon reservoir.

Project Name: Peace River Facility Expansion* (F033)
Type of Alternative Supply: Surface Water
Cooperator: Peace River Manasota Regional Water Supply Authority
Locale: Desoto County
Project Description: This is an alternative water supply project that involves expansion of the PRMRWSA 's water treatment facilities. Whereas, F032 is for the design and construction of a 6-billion-gallon reservoir, this project is for the design and construction associated with expanding the water treatment plant capacity from 24 to 48 mgd. Additionally, this project will construct five miles of a 20-inch pipeline from the PRMRWSA 's facilities to extended areas of Desoto County to supply up to 5.5 mgd to the county.

Project Name: Lake Hancock Design, Permit & Mitigation to Raise Lake Nearly 1.5 Feet (H008)
Type of Alternative Supply: Surface Water
Cooperator: District
Locale: Polk County
Project Description: The goal of the Lake Level Modification Project is to store water by raising the control elevation of the existing outflow structure on Lake Hancock and to slowly release the water during the dry season to help meet the minimum flow requirements in the upper Peace River between Bartow and Zolfo Springs.

Project Name: Lake Hancock Outfall Structure P-11* (H009)
Type of Alternative Supply: Surface Water
Cooperator: District
Locale: Polk County
Project Description: Design, permitting and construction of the replacement of the Lake Hancock P-11 Water Control Structure. Raising the normal operating water level of Lake Hancock to 100.0 feet will provide the storage to increase the number of days the upper Peace River will meet the minimum flows from 70 percent to 87 percent and provide up to 25 cfs (16.2 mgd) of recharge to the Upper Floridan aquifer through sinks.

Project Name: Lake Hancock Outfall Treatment System* (H014)
Type of Alternative Supply: Surface Water
Cooperator: District
Locale: Polk County
Project Description: The goal of the Lake Hancock Outfall Treatment Project is to improve water quality discharging from Lake Hancock through Saddle Creek to the Peace River.

Project Name: FARMS - Facilitating Agricultural Resource Management Systems (H017)
Type of Alternative Supply: Variety of Types
Cooperator: Variety of Cooperators
Locale: District-wide
Project Description: The FARMS program is an agricultural Best Management Practice (BMP) cost-share reimbursement program. The program is a public/private partnership developed by the District and the Florida Department of Agriculture and Consumer Services (FDACS). The purpose of the FARMS initiative is to provide an incentive to the agricultural community, within the District, to implement agricultural BMPs that will provide resource benefits that include water quality improvement; reduced Upper Floridan aquifer withdrawals; and/or conserve, restore, or augment the area's water resources and ecology.

Project Name: Charlotte County Reclaimed Water Expansion* (H027)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Charlotte County
Locale: Charlotte County
Project Description: Design, permitting and construction of reclaimed water transmission mains from the Charlotte County East Port Wastewater Treatment Facility (WWTF), west through Port Charlotte. The project also includes the design and construction of two 500,000-gallon storage tanks and associated pumping systems.

Project Name: Pasco County Southeast Regional Reclaimed Water Loop* (H041)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Pasco County
Locale: Pasco County
Project Description: Design, permitting and construction of approximately 18,500 linear feet of 24-inch reclaimed water transmission main with associated fittings and valves to complete the transmission system looped interconnection between Pasco County's Southeast Pasco and Wesley Center WWTF.

Project Name: PRMRWSA Regional Integrated Loop System Phase 2 Interconnect* (H051)
Type of Alternative Supply: Surface Water
Cooperator: PRMRWSA
Locale: Sarasota County, Desoto County
Project Description: Design, permitting and construction of an interconnect project to provide needed regional transmission capacity between the Peace River Facility and the City of North Port. The transmission line is a 36- to 42-inch diameter pipeline extending approximately seven miles from the Peace River Facility. In addition to serving the City of North Port, Phase II provides back-up capacity to the existing 36-inch main; and comprises a critical segment for the extension of future regional transmission capacity to the City of North Port's Myakkahatchee Creek Water Treatment Facility, the Englewood Water District Treatment Facilities, and the Carlton Water Treatment Facility.

Project Name: PRMRWSA Regional Integrated Loop System Phase 3A Interconnect* (H052)
Type of Alternative Supply: Surface Water
Cooperator: PRMRWSA
Locale: Sarasota County
Project Description: Design, permitting and construction of the Phase 3A pipeline from Sarasota County's Carlton Water Treatment Facility north across the Myakka River to an existing County utility line (critical to future transmission to Manatee County). Project components include 9 miles of 48-inch transmission lines, a 10 mgd pump station, two 5- mg tanks, metering and telemetry systems.

Project Name: Pasco County SR 52 East/West Reclaimed Water Interconnect* (H055)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Pasco County
Locale: Pasco County
Project Description: Design, permitting and construction of 24-inch diameter reclaimed water transmission mains east along SR 52, and south along McKendree Road to the Wesley Center WWTF.

Project Name: Pasco County Boyette Reclaimed Water Wet-Weather Storage* (H056)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Pasco County
Locale: Pasco County
Project Description: Design, permitting and construction of a 15 mgd pump station and lined wet-weather reclaimed water reservoir with a storage capacity of approximately 500 mg on the old Boyette Mine property.

Project Name: Tampa Bay Water System Configuration II* (H065)
Type of Alternative Supply: Surface Water Supply
Cooperator: Tampa Bay Water
Locale: Hillsborough County
Project Description: This project builds on Tampa Bay Water's existing Enhanced Surface Water System to provide an additional 25 mgd of alternative water supply. This is achieved by drawing more water from the Hillsborough River during high flows, via the Tampa Bypass Canal (TBC), in combination with increasing the allowable percentage of withdrawals from the TBC. The ten project components are primarily associated with the construction of improvements to the regional system's treatment, transmission, and storage infrastructure.

Project Name: Withlacoochee River Watershed Initiative (H066)
Type of Alternative Supply:
Cooperator: District
Locale: Marion, Levy, Citrus, Hernando, Pasco, Lake, Polk and Sumter County
Project Description: The intent of this project is to understand the dynamics of the Withlacoochee River watershed and associated natural systems, assess the water resource related changes that have occurred due to the land use changes and alterations, and evaluate water supply sources in the northern District. The project involves assembling the information and watershed model for the Green Swamp, Withlacoochee River, Little Withlacoochee River, the Tsala Apopka Chain of Lakes, Lake Rousseau, and the Western Terminus of the Cross-Florida Greenway.

Project Name: Pasco County Shady Hills/SR 52 Regional Reclaimed Water Interconnect* (H067)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Pasco County
Locale: Pasco County
Project Description: Design, permitting and construction of a 5-mg reclaimed water storage tank, reclaimed water pump station and a 24-inch reclaimed water transmission main to interconnect the Shady Hills WWTF with the SR 52 East/West Reclaimed Water Interconnect Project (H055).

Project Name: PRMRWSA Regional Integrated Loop System Phase 1A Interconnect* (H069)
Type of Alternative Supply: Surface Water
Cooperator: PRMRWSA
Locale: Desoto and Charlotte County
Project Description: The project consists of approximately 12 miles of a 24-inch diameter line interconnecting Punta Gorda's Shell Creek facility with the PRMRWSA's Peace River facility. Components include a 1.3-mile sub-aqueous crossing of the lower Peace River, a pumping station with chemical feeds, 0.5 mg storage and multiple tie-ins to Charlotte County's distribution system. The project has a bilateral transmission capacity of 6 mgd.

Project Name: TECO's Polk Power Station Reclaimed Water Interconnects to Lakeland/Polk County/Mulberry (H076)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Tampa Electric Company
Locale: Polk County
Project Description: Design, permitting and construction of approximately 15 miles of reclaimed water transmission main from City of Lakeland, Polk County and Mulberry's wastewater effluent to the Tampa Electric Company's (TECO) Polk Power Station (WUP# 11747) for power generation expansion (Unit 6). The project also includes the additional treatment necessary, including one deep disposal well, for TECO to treat the water to an acceptable level for cooling and other potential uses.

Project Name: Charlotte County Regional Reclaimed Water Expansion Phase 2* (H085)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Charlotte County
Locale: Charlotte County
Project Description: Design, permitting and construction of a reclaimed water pipeline, and also using existing and abandoned pipeline, to interconnect the east and west service areas of Charlotte County's reclaimed water system.

Project Name: Upper Myakka Flatford Swamp Restoration via Water Removal (H089)
Type of Alternative Supply: Surface Water
Cooperator: TBD
Locale: Manatee and Sarasota County
Project Description: Hydrologic alterations and excess runoff has adversely impacted Flatford Swamp in the upper Myakka watershed. This project will remove excess flows from Flatford Swamp and some portions of the surrounding area to improve the natural systems.

Project Name: Manatee County Regional 10 MG RW Storage SW-2* (H093)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Manatee County
Locale: Manatee County
Project Description: Design and construct the second of four 10 mg reclaimed water storage tanks in support of the Manatee County Agricultural Reuse System (MARS).

Project Name: Polk County Partnership (H094)
Type of Alternative Supply: Water Supply LFA/Brackish
Cooperator: Utilities within Polk County
Locale: Polk County
Project Description: This project includes support of regional cooperation within Polk County and the development of regional AWS projects that can achieve 30 mgd of base supply. The District Governing Board adopted Resolution No. 15-07 providing timing and guidance for this project, including $40 million to be provided in $10 million increments based on achievement of certain milestones. The first $30 million was committed in FY2015 through FY2017 for meeting milestones in support of AWS development, execution of project plan agreements, approval of cooperator's governance and establishment of the Polk Regional Water Cooperative (PRWC). In April 2017, the Governing Board approved the PRWC's selection of three AWS projects, meeting the milestone of the final $10 million for FY2018. The three projects are West Polk County Deep Wells (N882), Polk Southeast Wellfield (N905), and the Peace Creek Integrated Water Supply Plan (N928). The Governing Board approved the use of H094 funding allocations to the initial phases of these projects.

Project Name: Bradenton - ASR Program* (K114)
Type of Alternative Supply: Surface Water
Cooperator: City of Bradenton
Locale: Manatee County
Project Description: Design, permitting and construction of up to three additional monitoring wells, and performance of two additional cycle tests at the City of Bradenton's Downtown ASR site. The project is a continuation of the City's Downtown ASR project that will provide 1.5 mgd of potable water during the 100-day dry season.

Project Name: N. Sarasota Co. Reclaimed Water ASRs* (K269)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Sarasota County
Locale: Sarasota County
Project Description: Design, permitting and construction of three 1.2 mgd reclaimed water ASR wells with ultraviolet (UV) disinfection. These ASRs will be constructed at the County's Central County WWTF. The ASRs will provide wet weather storage for the County's Northern Regional Reuse System.

Project Name: Lake Tarpon ASR Test Well Program - Phase IV* (K422)
Type of Alternative Supply: Stormwater/Surface Water/Wastewater Reuse
Cooperator: Pinellas County
Locale: Pinellas County
Project Description: Design, permitting, construction and testing of an ASR well near the south end of Lake Tarpon. The well was expected to supply up to 1 mgd during the dry season (~273,000 gpd annually) using excess surface water collected from Lake Tarpon.

Project Name: St. Petersburg Northwest/Southwest Reclaimed Storage Tanks, Pumps, Telemetry* (K847)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of St. Petersburg
Locale: Pinellas County
Project Description: Design, permitting and construction of one 10-mg storage tank, two pump station expansions at the Southwest Water Reclamation Facilities and Northwest Water Reclamation Facilities, and supervisory control and data acquisition (SCADA) telemetry improvements to reclaimed water systems at all four City Reclamation Facilities.

Project Name: Lake Placid Reuse* (L153)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Lake Placid
Locale: Highlands County
Project Description: Design, permitting and construction of a reclaimed water pump station and a 500,000-gallon reclaimed water ground storage tank located at the Town's wastewater treatment facility site, and approximately 6,446 linear feet of 10-inch, 8-inch, and 6-inch diameter reclaimed water transmission main.

Project Name: City of Brooksville US 41 South Service Area Reuse System* (L169)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Brooksville
Locale: Hernando County
Project Description: Design, permitting and construction of 37,670 linear feet of transmission main from the City of Brooksville's Cobb Road WWTP to the Southern Hills Plantation Development on US 41, two 1.0 mgd pump stations, two .75 mg reclaimed water storage tanks at the WWTP and three 3.0 mg lined storage ponds. The three storage ponds are located at Southern Hills Plantation. Reclaimed water is used to irrigate the golf course, common areas and individual residences.

Project Name: Clearwater Morningside Area Reclaimed Water Transmission and Distribution* (L254)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Clearwater
Locale: Pinellas County
Project Description: Design, permitting and construction of reclaimed water transmission mains and distribution piping in the Morningside area as well as other large customers located throughout the City which include irrigation at schools, parks, condos and the west Bellaire golf course.

Project Name: Pasco County Connerton Reclaimed Transmission & Storage* (L270)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Pasco County
Locale: Pasco County
Project Description: Design, permitting and construction of 23,780 linear feet of 16-inch and 24-inch reclaimed water transmission main and a lined 15-acre reclaimed water storage pond to serve the landscape irrigation needs of an estimated 6,800 residential units and 4.5 million square feet of non-residential development planned for the Connerton Development in central Pasco County.

Project Name: Hillsborough County Lithia-Pinecrest Reclaimed Transmission* (L294)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Hillsborough County
Locale: Hillsborough County
Project Description: Design, permitting and construction of 12,200 feet of 24-inch reclaimed water transmission main, controls, telemetry and associated appurtenances to be located along Lithia Pinecrest Road from Bloomingdale Avenue south to the entrance road to the Riverhills Golf Course.

Project Name: City of Inverness Reclaimed Water Transmission* (L468)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Inverness
Locale: Citrus County
Project Description: Design, permitting and construction of approximately 17,000 linear feet of reclaimed water transmission main to the Inverness Golf and Country Club, and the expansion of a pump station located at the WWTP.

Project Name: Polk County Utilities NE Regional Reclaimed Storage Expansion* (L475)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Polk County
Locale: Polk County
Project Description: Design, permitting and construction of two 5-mg ground storage reservoirs and one 15-mgd high service pumping facility.

Project Name: City of Sarasota Payne Park Reuse* (L500)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Sarasota
Locale: Sarasota County
Project Description: Design, permitting and construction of 4,280 linear feet of 8- to 14-inch diameter reuse transmission line between the City's Downtown Loop reclaimed transmission line and Payne Park.

Project Name: Aqua Utilities Reuse Transmission to Lakewood Ranch* (L522)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Aqua Utilities
Locale: Sarasota and Manatee Counties
Project Description: Design, permitting and construction of 3,900 feet of 12-inch reclaimed water transmission line and upgrading an existing pump station to provide reclaimed water to the Corporate Park area of Lakewood Ranch from the Aqua Utilities Florida, Inc. WWTF.

Project Name: Palmetto Reclaimed Water ASR* (L608)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Palmetto
Locale: Manatee County
Project Description: Design, permitting and construction of ultraviolet (UV) disinfection, cycle testing, and operational permitting for a 1.2-mgd reclaimed water ASR well for the City of Palmetto.

Project Name: Englewood Reuse Transmission – Stillwater* (L652)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Englewood Water District
Locale: Sarasota County
Project Description: Design, permitting and construction of approximately 4,379 feet of 6-inch reuse transmission line to connect the Stillwater Subdivision to the Englewood Reuse System.

Project Name: Clearwater Skycrest Reclaimed Water* (L695)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Clearwater
Locale: Pinellas County
Project Description: Design, permitting and construction of reclaimed water transmission mains, distribution piping, a 5-mg storage tank and high service pump station in the Skycrest area of Clearwater. The project connects the City's east and west reclaimed water service areas and also provides service to nearly 500 residential and commercial reclaimed water customers in central Clearwater.

Project Name: City of Dunedin Reclaimed Transmission & Distribution* (L697)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Dunedin
Locale: Pinellas County
Project Description: Construction of seven combined reclaimed water transmission main and distribution systems. A total of approximately 3,579 linear feet of reclaimed water transmission main and approximately 27,146 linear feet of distribution mains provide service to 500 residences (377 active) in the seven project areas.

Project Name: Pasco County Overpass Road Reclaimed Water Transmission* (L729)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Pasco County
Locale: Pasco County
Project Description: Design, permitting and construction of approximately 16,700 linear feet of 16-inch and 4,100 linear feet of 12-inch reclaimed water transmission mains near Overpass Road to supply 1,749 residential reclaimed water customers in the Watergrass/DePue Ranch Development.

Project Name: Levitt and Sons South Brooksville Reuse System - Phase II* (L781)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Levitt and Sons
Locale: Hernando County
Project Description: Design, and permitting of a reclaimed water transmission main, a 2.3- mg lined storage pond and a 1-mgd pump station in the Phase II (Cascades) area of Southern Hills Plantation to provide service to 925 residential customers as well as common area landscape irrigation.

Project Name: On Top of the World Marion County Reclaimed Water* (L786)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Bay Laurel Center Community Development District
Locale: Marion County
Project Description: Design, permitting and construction of a 2.5-mg reclaimed water storage tank, pump station and transmission mains to serve the On Top of the World Golf Course, the Candler Hills Golf Course and the common areas of the On Top of the World development.

Project Name: Plant City Sydney & Park Road Reclaimed Water* (L816)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Plant City
Locale: Hillsborough County
Project Description: Design, permitting and construction of reclaimed water transmission mains to serve Walden Lake Golf Course, South Florida Baptist Hospital, Plant City Stadium, Martin Luther King Jr. ball fields, Marshall Middle School, Tomlin Middle School and Bryan Elementary School.

Project Name: Oldsmar Reclaimed Water Distribution System and Telemetry* (L821)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Oldsmar
Locale: Pinellas County
Project Description: Design and construction of reclaimed water distribution lines within the downtown area of Oldsmar to provide service to 174 residences. The project also includes the design and installation of an eleven-valve automated telemetry control system.

Project Name: Dade City Reclaimed Water* (L823)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Dade City
Locale: Pasco County
Project Description: Design, permitting and construction of transmission mains and 1-mg storage tank, conversion of a rapid infiltration basin to a lined storage pond, and pump station to supply the Little Everglades Ranch for the race track and sod farm operations.

Project Name: Zephyrhills Reclaimed Water Extension* (L824)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Zephyrhills
Locale: Pasco County
Project Description: Design, permitting and construction of 4,000 linear feet of 6-inch diameter reclaimed water transmission lines and 2,000 linear feet of 2-inch diameter distribution lines for landscape irrigation.

Project Name: Englewood Park Forest Reuse Transmission* (L869)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Englewood Water District
Locale: Sarasota County
Project Description: Design, permitting and construction of approximately 3,800 feet of 6-inch and 4-inch reuse transmission line to connect the Park Forest Subdivision to the Englewood Reuse System.

Project Name: Aqua Utilities Reuse Transmission - Eastern Lakewood Ranch* (L874)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Aqua Utilities Florida, Inc.
Locale: Manatee County
Project Description: Design and construction of 7,500 feet of 14-inch reclaimed water transmission line; 16,500 feet of 20-inch reclaimed water line; and a pump station to provide reclaimed water to the residential and agricultural areas in the eastern part of Lakewood Ranch.

Project Name: Haines City Southern Reuse* (N065)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Haines City
Locale: Polk County
Project Description: Expand the City's Reclaimed Water System to the eastern and southern portion of the City's potable water service area. The project consists of design and construction ofapproximately 17,430 linear feet reclaimed water transmission main ranging in diameter from 24 to 30 inches, an interim reclaimed water booster pumping station and necessary appurtenances.

Project Name: Bradenton Surface Water ASR Feasibility Study - Phase 1 (N435)
Type of Alternative Supply: Surface Water
Cooperator: City of Bradenton
Locale: Manatee County
Project Description: This project will include the construction of one ASR well, two monitoring wells, piping, pumps and an arsenic control pre-treatment system at the City's water treatment plant to help meet current and future potable water supply demands. The City completed a feasibility study in 2013 that demonstrated adequate treatment system capacity, appropriate source water quality and quantity, and favorable subsurface conditions for ASR. The goal of the ASR system will be to store approximately 150 mg of surface water during high flows in the Most Impacted Area (MIA) of the Southern Water Use Caution Area (SWUCA) that can be used during the dry season. The objectives are to augment the existing surface water supply as an alternative to an upland storage reservoir and may serve as a recovery strategy option to meet the requirements of the Minimum Flow and Level (MFL) program that impacts the lower Manatee River basin when the levels are established.

Project Name: Charlotte County Reclaimed Water Expansion Phase 3 Project (N556)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Charlotte County
Locale: Charlotte County
Project Description: Design, permitting and construction of approximately 43,000 feet of 16-inch, and 8000 feet of 4 to 6-inch diameter reclaimed transmission mains, retrofit of a 95 MG storage pond along with aeration, filtration, flow meter, telemetry, post chlorination system, transfer stations and approximately a 3.0-5.0 mgd pump station. The main transmission portions are located along County Road 775 (Placida Road), major north/south corridor in western Charlotte County and along Cape Haze Drive. The project will supply approximately 2.23 mgd of reclaimed water for commercial and golf course irrigation in the SWUCA.

Project Name: Clearwater Groundwater Replenishment Project Phase 3 (N665)
Type of Alternative Supply: Indirect potable
Cooperator: City of Clearwater
Locale: Pinellas County
Project Description: The project consists of design, third party review, permitting and construction for the full-scale water purification plant, and the injection and monitor well systems at Clearwater's Northeast Water Reclamation Facility to recharge 2.4 mgd annual average of purified reclaimed water.

Project Name: Braden River Utilities Reclaimed Water Transmission Line Project (N711)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Braden River Utilities
Locale: Manatee County
Project Description: Construction of a reclaimed water transmission main extension to serve Lakewood Ranch via Braden River Utilities. This transmission main provides additional reclaimed water flows sourced from the City of Sarasota to meet residential and recreational irrigation demands. The project will also allow for the routing and distribution of reclaimed water from the City of Bradenton. The easterly transmission main will consist of approximately 17,000 linear feet of 16 to 20-inch pipeline. The northern transmission main will consist of approximately 13,200 linear feet of 12 to 20-inch pipeline. The project also includes an 11.4 MG storage reservoir at the northern terminus and a passive denitrification pilot system.

Project Name: Pasco Starkey B Reuse Project (N743)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Pasco County
Locale: Pasco County
Project Description: Design, permitting and construction of approximately 17,500 feet of reclaimed water transmission mains to provide up to 0.41 mgd of reclaimed water to mixed-use irrigation customers (residential, commercial and civic) in the Starkey Ranch development. The initial benefits are anticipated to be achieved within three years of construction completion (2021).

Project Name: NERUSA Loughman and Ridgewood RW Transmission (N772)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Polk County Utilities
Locale: Polk County
Project Description: Design, permitting, CEI and construction of approximately 12,400 feet of 12 to 24 inch reclaimed water transmission mains and other necessary appurtenances to supply approximately 915 residential irrigation customers in the Ridgewood (Ridgewood Lakes Development expansion) and Loughman (Del Webb Development expansion) Areas of NERUSA.

Project Name: Hillsborough County 19th Avenue Reclaimed Water Transmission Main (N776)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Hillsborough County
Locale: Hillsborough County
Project Description: Construction of approximately 19,000 feet of 20 to 30-inch reclaimed water transmission mains and other necessary appurtenances to supply 2,000 residential irrigation customers in the Harbour Isle and Waterset South developments and future additional residential irrigation and recharge projects in the Apollo Beach area of the SWUCA. The project will supply approximately 1.20 mgd of reclaimed water for residential irrigation and enable the future supply of up to 8.60 mgd to the South Hillsborough Area Recharge Project (SHARP/SHARE) and additional residential irrigation customers.

Project Name: Punta Gorda RO Facility (N780)
Type of Alternative Supply: Brackish
Cooperator: City of Punta Gorda
Locale: Charlotte, Desoto, Manatee, and Sarasota Counties
Project Description: The project consists of the design, wellfield study, third party review, permitting, and construction of a 4 mgd brackish groundwater reverse osmosis (RO) facility co-located at the City's existing 10 mgd Shell Creek surface water treatment facility. Components include the RO facility, water blending facility, including 2 mg tank, raw water supply wellfield, and a concentrate disposal well. The benefit is to ensure the availability of the alternative water supply from the Shell Creek facility that is currently hampered by poor water quality, as well as protecting natural systems by increasing flow reliability to the lower Shell Creek Estuary.

Project Name: Pasco Starkey Ranch Reclaimed Water Transmission Project - Phase C (N791)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Pasco County
Locale: Pasco County
Project Description: Design, permitting and construction of approximately 5,700 feet of 12 to 16-inch reclaimed water transmission mains and other necessary appurtenances to supply residential, commercial and institutional customers in the Phase C area of the Starkey Ranch development. The project will supply approximately 0.29 mgd of reclaimed water for irrigation to mixed-use customers in the Northern Tampa Bay Water Use Caution Area (NTBWUCA).

Project Name: Pasco County River Edge Golf Course and Waters Edge Residential Reclaimed Water Project (N792)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Pasco County
Locale: Pasco County
Project Description: Design, permitting and construction of approximately 19,000 feet of 16-inch reclaimed transmission mains and other necessary appurtenances to supply a golf course and residential community with reclaimed water in the west central area of Pasco County. The project will supply 0.40 mgd of reclaimed water for irrigation to a golf course and residential customers situated in the NTBWUCA.

Project Name: Hillsborough County Reclaimed Water Sun City Golf Course Expansion (N804)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Hillsborough County
Locale: Hillsborough County
Project Description: Construction of approximately 15,500 feet of 6 to 16-inch reclaimed water transmission mains and other necessary appurtenances to provide an alternative supply for the irrigation of seven golf courses located at Sun City Center in Hillsborough County.

Project Name: Hillsborough County Reclaimed Water Major User Connections (N817)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Hillsborough County
Locale: Hillsborough County
Project Description: Design, permitting and construction of approximately 2,600 feet of 6 to 10-inch reclaimed water transmission mains and other necessary appurtenances to provide an alternative supply for the irrigation of 2 golf courses located at the Tournament Players Club and the Summertree Crossings Golf Club. The project will supply 0.15 mgd of reclaimed water at two golf courses located respectively within the Northern Tampa Bay Water Use Caution Area and within the Most Impacted Area of the Southern Water Use Caution Area.

Project Name: PRMRWSA Regional Integrated Loop System - Phase 3B (N823)
Type of Alternative Supply: Surface Water
Cooperator: PRMRWSA
Locale: Sarasota County
Project Description: The project is for eligible FY17 design of the Regional Loop System Phase 3B Interconnect including basis of design, 30% design, third party review, and additional design needed in FY17. This interconnect is part of the PRMRWSA 's Regional Integrated Loop System to extend the system approximately 4.2 miles from its current northern terminus along Cow Pen Slough northward to Clark Road (SR-72) in central Sarasota County. The project may include 7 mgd of pumping, chemical trim, metering, and 5 mg storage facilities as determined by basis of design. District funding is for eligible FY17 design work including third party review as this project has a conceptual construction estimate greater than $5 million dollars. If constructed, the project will develop a component of the Regional Integrated Loop System that will supply an estimated 7 mgd of alternative water supplies to promote regional resource management efforts and support water supply goals within the Southern Water Use Caution Area.

Project Name: City of North Port ASR – Permanent Facilities (N833)
Type of Alternative Supply: Surface Water
Cooperator: City of North Port
Locale: Sarasota and Charlotte Counties
Project Description: The project is for the design, permitting, and construction of the permanent surface facilities for a potable water ASR system. The site testing for the mobilization of arsenic using partially treated surface water will be completed ahead of schedule in FY2016 as part of project K120. Assuming favorable results, this project will design, permit, and construct this facility at its intended full-scale operation, including converting the temporary surface facilities used during the testing to permanent surface facilities and any additional testing that DEP may require for operation permitting. The project will provide recovery of approximately 60 MG/yr of water for potable use in the SWUCA during the dry season.

Project Name: City of Bradenton Aquifer Protection Recharge Well (N842)
Type of Alternative Supply: Surface Water
Cooperator: City of Bradenton
Locale: Manatee County
Project Description: The project is for the 30% design and third party review of one recharge well in the Avon Park High Producing Zone of the Upper Floridan aquifer and associated facilities to help prevent nutrient loading to the Manatee River and Tampa Bay and to replenish groundwater in the MIA.

Project Name: PRMRWSA Partially Treated Water ASR Feasibility(N854)
Type of Alternative Supply: Surface Water
Cooperator: PRMRWSA
Locale: Desoto County
Project Description: The project is for the site feasibility testing, 30% design and third-party review of a partially treated water aquifer storage and recovery project located at the PRMRWSA aquifer storage and recovery (ASR) facility.

Project Name: South Hillsborough Aquifer Recharge Expansion (SHARE) (N855)
Type of Alternative Supply: Indirect potable
Cooperator: Hillsborough County
Locale: Hillsborough County
Project Description: Third Party Review (TPR) of the County's 30% design, completion of FY2018 design and permitting, and initiation of construction for Phase 1 of the South Hillsborough Aquifer Recharge Expansion (SHARE) project.

Project Name: Pasco County Cypress Preserve Reclaimed Water Transmission Project (N837)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Pasco County
Locale: Pasco County
Project Description: The design, permitting and construction of approximately 3,000 feet of 10 to 14 inch reclaimed water transmission mains and other necessary appurtenances to supply approximately 557 single family homes, 284 multi-family homes, and approximately 15 acres of common areas in the Cypress Preserve community.

Project Name: Polk County NERUSA CR 547 Reclaimed Water Transmission Project (N862)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Polk County Utilities
Locale: Polk County
Project Description: Design, permitting and construction of approximately 6,900 feet of 10 - 16 inch reclaimed water transmission mains and other necessary appurtenances to supply approximately 1,060 residential irrigation customers in the Williams Preserve, Greenfield Village and Shell Property Areas of NERUSA.

Project Name: Hillsborough County Summerfield Sports Complex Reclaimed Water Transmission Main (N863)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Hillsborough County
Locale: Hillsborough County
Project Description: Design, permitting and construction of an interconnected transmission line, a reclaimed water pump station; and other necessary appurtenances to supply contracted reclaimed water flows to athletic fields located at the Summerfield Sports Complex in Hillsborough County.

Project Name: Polk County NERUSA Ernie Caldwell Blvd Reclaimed Water Transmission Project (N868)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Polk County Utilities
Locale: Polk County
Project Description: Design, permitting and construction of approximately 10,300 feet of 16 -24 inch reclaimed water transmission mains and other necessary appurtenances to supply approximately 1,100 residential irrigation customers in the Ridgewood Lake DRI Property Areas of NERUSA.

Project Name: Arcadia Golf Course Reclaimed Water Storage Reservoir (N881)
Type of Alternative Supply: Wastewater Reuse
Cooperator: City of Arcadia
Locale: Desoto County
Project Description: Design, permitting, and construction of a 600,000 gallon storage pond, approximately 600 feet of 8 inch reclaimed water transmission mains and other necessary appurtenances to supply additional reclaimed water to the Arcadia Golf Course.

Project Name: Haines City Reclaimed Water MFL Recharge & Advanced Treatment Feasibility (N888)
Type of Alternative Supply: Indirect potable
Cooperator: Haines City
Locale: Polk County
Project Description: Evaluation of reclaimed water recharge sites, components and advanced treatment necessary to assist in meeting Minimum Flows and Levels (MFLs) on Lake Eva in the "Ridge Lakes" area of the CFWI.

Project Name: Haines City Reclaimed Water Tank and Pump Stations Project Study (N898)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Haines City
Locale: Polk County
Project Description: The project is for conceptual sizing, preliminary design, 30% design and third party review of an expansion to the City's reclaimed water storage and pumping infrastructure. The infrastructure may include a reclaimed water storage tank, a low-pressure reuse transfer pump station, a high-pressure reuse pump station, telemetry controls and other necessary appurtenances to supply existing reuse customers and to enable future expansions of the City's reuse system.

Project Name: Haines City Reclaimed Water Tank and Pump Stations Design Project (N898)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Haines City
Locale: Polk County
Project Description: Conceptual sizing, preliminary design, 30% design and third party review of an expansion to the City's reclaimed water storage and pumping infrastructure.

Project Name: Polk County Reclaimed Water Recharge Study in Dover/Plant City WUCA & Northwest Polk Areas(N899)
Type of Alternative Supply: Indirect potable
Cooperator: Polk County
Locale: Polk County
Project Description: This feasibility study by Polk County is to develop a reclaimed water project concept to utilize up to 1.5 mgd of reclaimed water for aquifer recharge or other innovative methods to supplement groundwater supplies in Polk County's Northwest Regional Utility Service Area (NWRUSA).

Project Name: Braden River Braden River Utilities Reclaimed Water ASR Feasibility (N912)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Braden River Utilities
Locale: Manatee County
Project Description: Third party review and reclaimed water Aquifer Storage and Recovery (ASR) feasibility studies at two sites each including the construction of an ASR well, two storage zone wells and one upper zone monitoring well; partial infrastructure consisting of simplified control systems, temporary piping, pumps and other associated infrastructure necessary to sufficiently and cost-effectively perform two cycle tests in accordance with Florida Department of Environmental Protection permit requirements.

Project Name: Polk County NERUSA FDC Grove Road Reclaimed Water Transmission Project (N918)
Type of Alternative Supply: Wastewater Reuse
Cooperator: Polk County Utilities
Locale: Polk County
Project Description: Design, permitting and construction of approximately 13,600 feet of 6 to 8 inch reclaimed water transmission mains and other necessary appurtenances to supply approximately 400 residential irrigation customers in the Natures Reserve, Polak/Cambria, County Walk Estates, Classic Estates, Taylor Made Property/Sunridge, Holly Grove Villas and other Areas of NERUSA.

Project Name: Main West Villages to Sarasota County South Reclaimed Water Transmission Project (N920)
Type of Alternative Supply: Wastewater Reuse
Cooperator: West Villages Improvement District
Locale: Sarasota County
Project Description: Design, permitting, and construction of approximately 5,000 feet of 12 inch reclaimed water transmission mains and other necessary appurtenances to supply approximately 620 residential irrigation customers in the West Villages Community.

Project Name: Hydrogeological Investigation of the Lower Floridan Aquifer in Polk County (P280)
Type of Alternative Supply: Brackish
Cooperator: Polk Regional Water Cooperative
Locale: Polk County
Project Description: This project explores the Lower Floridan aquifer in Polk County to assess its viability as an alternative water supply source as well as to gain a better understanding of the LFA characteristics and groundwater quality in Polk County. Funding is available for three sites. Multiple sites have been identified at alternate or future sites. The sites are on properties owned by Polk County and its cities. At each site, if the tests on the initial exploration monitor well drilled are positive, a test production well will be constructed at the site. In addition, an aquifer performance test (APT) will be performed on the test production well to obtain transmissivity and leakance information as well as to determine the quality of the formation water. At each site, if the exploratory monitor well does not have sufficient porosity and permeability or suitable water quality, it will become a permanent monitor well of the LFA for the District. In addition, if the test production well is sufficient for use as a production well, it may be a candidate for addition to a regional water supply authority in Polk County. The Crooked Lake site is the exception, as the future potential use of a test/production well is for monitoring purposes.

Consolidated **Annual Report**

March 1, 2018

2018 Five-Year Water Resource Development Work Program

Southwest Florida
Water Management District

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Introduction/Purpose

The District is required to prepare a Five-Year Water Resource Development Work Program (Work Program) as a part of its annual budget reporting process, pursuant to Subsection 373.536(6)(a)4, Florida Statutes (F.S.), as amended in 2016:

"The program must describe the district's implementation strategy and include an annual funding plan for each of the five years included in the plan for the water resource and water supply development components, including alternative water supply development, of each approved regional water supply plan developed or revised under s. 373.709. The work program must address all the elements of the water resource development component in the district's approved regional water supply plans, as well as the water supply projects proposed for district funding and assistance. The annual funding plan shall identify both anticipated available district funding and additional funding needs for the second through fifth years of the funding plan. The work program must identify projects in the work program which will provide water; explain how each water resource and water supply project will produce additional water available for consumptive uses; estimate the quantity of water to be produced by each project; provide an assessment of the contribution of the district's regional water supply plans in supporting the implementation of minimum flows and minimum water levels and water reservations; and ensure sufficient water is available to timely meet the water supply needs of existing and future reasonable-beneficial uses for a 1-in-10-year drought event and to avoid the adverse effects of competition for water supplies."

This report represents the District's 17th Work Program and covers the period from fiscal year (FY) 2018 through FY2022. This Work Program is consistent with the planning strategies of the District's 2015 Regional Water Supply Plan (RWSP) and the Central Florida Water Initiative 2015 Regional Water Supply Plan (CFWI Plan). To meet statutory requirements updated in 2016, the Work Program includes the anticipated five-year funding for water supply development assistance projects, an assessment of the RWSP contribution to support minimum flows and levels (MFLs) and water reservations, identification of the water use caution area (WUCA) benefitted by each project, and includes an appendix showing projects intended to help implement Basin Management Action Plans.

Water Resource Development

Section 373.019(24), F.S., defines **Water Resource Development** as "*the formulation and implementation of regional water resource management strategies, including the collection and evaluation of surface water and groundwater data; structural and nonstructural programs to protect and manage water resources; the development of regional water resource implementation programs; the construction, operation, and maintenance of major public works facilities to provide for flood control, surface and underground water storage, and groundwater recharge augmentation; and related technical assistance to local governments, government-owned and privately owned water utilities, and self-suppliers to the extent assistance to self-suppliers promotes the policies as set forth in s. 373.016.*" The intent of Water Resource Development (WRD) activities and projects is to enhance the amount of water available for reasonable-beneficial uses and for natural systems. The District is primarily responsible for implementing WRD activities and projects; however, additional funding and technical support may come from state, federal, and local entities. The WRD component of the District's RWSP identifies a series of data collection and analysis activities the District is undertaking which meet this statutory definition. The implementation strategy for this category is contained in the **WRD Data Collection and Analysis Activities** section of this report. In addition, the District undertakes a variety of more narrowly defined WRD "Projects." For annual budget reporting, these projects are categorized as regional projects designed to create an identifiable supply of water for existing and/or future reasonable-beneficial uses. The implementation strategy for this category is contained in the **WRD Projects** section of this report.

WRD Data Collection and Analysis Activities

The District has budgeted significant funds in FY2018 to implement and continue the WRD component of the RWSP. The activities summarized in Table 1 are mainly data collection and analysis activities that support the health of natural systems and the development of water supplies by local governments, utilities, regional water supply authorities, and others. The table indicates that approximately $29.9

million will be allocated toward these activities in FY2018 and an estimated $149 million will be allocated between FY2018 and FY2022. Because budgets for the years beyond FY2018 have not yet been developed, future funding estimates for activities continuing through FY2022 are set equal to FY2018 funding. Funding for these activities is primarily from the District's Governing Board; in some cases, additional funding is provided by water supply authorities, local governments, the Florida Fish and Wildlife Conservation Commission (FWC), and the United States Geological Survey (USGS). Many of the activities were highlighted as major budget items in the District's Tentative Budget Submission, and references to the sub-activity code and the printed page number are provided. Each of the activities in Table 1 is further described below.

Hydrologic Data Collection

The District has a comprehensive hydrologic conditions monitoring program that includes the assembly of information on key indicators as rainfall, surface water and groundwater levels, water quality, and stream flows. The program includes data collected by District staff and permittees as well as data collected as part of the District's cooperative funding program with the USGS. Data collected allows the District to gage changes in the health of water resources, monitor trends in conditions, identify and analyze existing or potential resource problems, and develop programs to correct existing problems and prevent future problems from occurring. The data collection activities support District flood control structure operations, water use and environmental resource permitting and compliance, MFLs evaluation and compliance, the Surface Water Improvement and Management (SWIM) program, the Southern Water Use Caution Area (SWUCA) recovery strategy, the CFWI, modeling of surface water and groundwater systems, and many resource evaluations and reports.

The categories of hydrologic data that are collected and monitored by District staff are discussed below. The District also evaluates the hydrologic data submitted by Water Use Permit (WUP) holders to ensure compliance with permit conditions and to assist with monitoring and documenting hydrologic conditions.

a) Surface Water Flows and Levels. Funding supports data collection at the District's 802 surface water level gauging sites, and cooperative funding with the USGS for discharge and water-level data collection at 164 river, stream, and canal sites. The USGS data are available to District staff and the public through the District's Water Management Information System (WMIS) and through the USGS Florida Water Science Center Web Portal.

b) Geohydrologic Data Well Network. The Geohydrologic Data Well Network is a monitor well network that supports various projects throughout the District including the CFWI, Water Resource Assessment Projects (WRAPs), Water Use Caution Areas (WUCAs), the Northern Tampa Bay Phase III program, the Springs Team, sea level rise and other salt-water intrusion assessments, and development of alternative water supplies. The network includes the Regional Observation and Monitor-well Program (ROMP) which has been the District's primary means for hydrogeologic data collection since 1974. Data from monitor well sites are used to evaluate seasonal and long-term changes in groundwater levels and quality, as well as the interaction and connectivity between groundwater and surface water bodies. During construction of new monitor well sites, valuable hydrogeologic information is collected including the lithology, aquifer hydraulic characteristics, water quality, and water levels.

c) Meteorologic Data. The meteorologic data monitoring program consists of measuring rainfall totals every 15 minutes at 135 near real-time rain gauges and 41 recording rain gauges. The funding is for costs associated with measurement of rainfall including sensors, maintenance, repair and replacement of equipment. Funding allows for the operation of a mixed-forest wetland evapotranspiration (ET) station by the USGS that directly measures actual ET, and one District ET site for reference ET. Funding provides for District participation in a cooperative effort between the USGS and all five Florida water management districts to map statewide potential and reference ET using data measured from the Geostationary Operational Environmental Satellites (GOES). Funding also includes a collaborative effort between the five districts to provide high-resolution radar rainfall data for modeling purposes.

d) Water Quality Data. The District's Water Quality Monitoring Program (WQMP) collects data from water quality monitoring networks for springs, streams, lakes, and coastal and inland rivers. Many monitoring sites are sampled on a routine basis, with data analysis and reporting conducted on an annual basis. The Coastal Groundwater Quality Monitoring network, which involves sample collection and analysis from approximately 375 wells across the District, is used to monitor the saltwater intrusion and/or the upwelling of mineralized waters into potable aquifers.

Table 1. FY2018 - FY2022 Water Resource Development Data Collection and Analysis Activities

WRD Data Collection and Analysis Activities	Budget Reference[1]	FY2018 Costs ($)	FY2019 Costs ($)	FY2020 Costs ($)	FY2021 Costs ($)	FY2022 Costs ($)	Total Costs ($)	Funding Source[2]
1) Hydrologic Data Collection								District, other WMDs, USGS, DEP, FWC
a) Surface Water Flows & Levels	1.2.1, p.63	$2,054,979	$2,054,979	$2,054,979	$2,054,979	$2,054,979	$10,274,895	
b) Geologic (includes ROMP)	1.2.1, p.63	$1,998,281	$1,998,281	$1,998,281	$1,998,281	$1,998,281	$9,991,405	
c) Meteorologic Data	1.2.1, p.63	$248,268	$248,268	$248,268	$248,268	$248,268	$1,241,340	
d) Water Quality	1.2.1, p.63	$792,974	$792,974	$792,974	$792,974	$792,974	$3,964,870	
e) Groundwater Levels	1.2.1, p.63	$557,733	$557,733	$557,733	$557,733	$557,733	$2,788,665	
f) Biologic Data	1.2.1, p.63	$1,324,267	$1,324,267	$1,324,267	$1,324,267	$1,324,267	$6,621,335	
g) Data Support	1.2.1, p.63	$2,453,980	$2,453,980	$2,453,980	$2,453,980	$2,453,980	$12,269,900	
2) Minimum Flows and Levels Program								District, other WMDs, USGS, DEP, FWC
a) Technical Support	1.1.2, p.59	$1,363,121	$1,363,121	$1,363,121	$1,363,121	$1,363,121	$6,815,605	
b) Establishment Projects	1.1.2, p.59	$729,127	$729,127	$729,127	$729,127	$729,127	$3,645,635	
c) Re-evaluation Projects	1.1.2, p.59	$110,868	$110,868	$110,868	$110,868	$110,868	$554,340	
3) Watershed Management Planning	1.1.3, p.61	$5,390,095	$5,390,095	$5,390,095	$5,390,095	$5,390,095	$26,950,475	District, Local Cooperators
4) Quality of Water Improvement Program	2.2.3, p.83	$589,340	$589,340	$589,340	$589,340	$589,340	$2,946,700	District
5) Stormwater Improvements-Implementation of Storage and Conveyance BMPs	2.3.1, p.85	$12,265,616	$12,265,616	$12,265,616	$12,265,616	$12,265,616	$61,328,080	District, USGS
Totals		**$29,878,649**	**$29,878,649**	**$29,878,649**	**$29,878,649**	**$29,878,649**	**$149,393,245**	

Source: SWFWMD FY2018 Tentative Budget Submission.

[1] Budget Reference contains the Budget Sub-Activity Code and the printed page number in the Tentative Budget Submission where project is referenced as a major budget item.
[2] Acronyms: WMDs - Water Management Districts, USGS - United States Geological Survey, DEP - Florida Department of Environmental Protection, FWC - Florida Fish and Wildlife Conservation Commission, ROMP - District Regional Observation and Monitor-well Program, BMPs - Best Management Practices.

e) Groundwater Levels. The funding provides for the maintenance and support of 1,593 monitor wells in the data collection network, including 823 wells that are instrumented with data loggers that record water levels once per hour, and 770 that are measured manually by field technicians once or twice per month.

f) Biologic Data. The District monitors ecological conditions as they relate to both potential water use impacts and changes in hydrologic conditions. Funding for biologic data collection includes support for routine monitoring of approximately 190 wetlands to document changes in wetland health and assess level of recovery in impacted wetlands. Funding also supports SWIM Program efforts for mapping and monitoring of seagrasses in priority water bodies including Tampa Bay, Sarasota Bay, Charlotte Harbor, and the Springs Coast area. Funding also supports an effort to map the estuarine hard bottom of Tampa Bay.

g) Data Support. This item provides administrative and management support for the WQMP, hydrologic and geohydrologic staff support, support for the chemistry laboratory, and support for the District's Supervisory Control and Data Acquisition (SCADA) system.

Minimum Flows and Levels Program (MFLs)

MFLs are hydrologic and ecological standards that can be used for permitting and planning decisions concerning how much water may be withdrawn from or near a water body without causing significant harm to water resources or ecology of the area. Chapter 373.042, F.S., requires the state water management districts or the Department of Environmental Protection (DEP) to establish MFLs for aquifers, surface watercourses, and other surface water bodies to identify the limit at which further withdrawals would be significantly harmful. Rivers, streams, estuaries, and springs require minimum flows; while minimum levels are developed for lakes, wetlands, and aquifers. MFLs are adopted into District rules, Chapter 40D-8, Florida Administrative Code (F.A.C.), and are used in the District's Water Use and Environmental Resource permitting programs.

The District's process for establishing MFLs includes an opportunity for interested stakeholders to review and comment on the proposed MFLs and to participate in public meetings. The process for establishing MFLs for flowing water bodies also includes an independent scientific peer review. The stakeholder input and peer review, when conducted, are considered by the Governing Board when deciding whether to adopt a proposed MFL. District monitoring programs also provide data for evaluating compliance with the adopted MFLs, determining the need for recovery strategies and analyzing the recovery of water bodies where significant harm has been established.

Watershed Management Planning

The District addresses flooding problems in existing areas by preparing and implementing Watershed Management Plans (WMPs) in cooperation with local governments. The WMPs define flood conditions, identify flood level of service deficiencies, and evaluate best management practices (BMPs) to address those deficiencies. The WMPs include consideration of the capacity of a watershed to protect, enhance, and restore water quality and natural systems while achieving flood protection. The plans identify effective watershed management strategies and culminate in defining floodplain delineations and constructing selected BMPs.

Local governments and the District combine their resources and exchange watershed data to implement the WMPs. Funding for local elements of the WMPs is provided through local governments' capital improvement plans and the District's Cooperative Funding Initiative. Additionally, flood hazard information generated by the WMPs is used by the Federal Emergency Management Agency (FEMA) to revise the Flood Insurance Rate Maps (FIRMs). This helps to better define flood risk and is used extensively for land use planning by local governments and property owners. Since the WMPs may change based on growth and shifting priorities, the District also cooperates with local governments to update the WMPs when necessary, giving decision-makers opportunities throughout the program to determine when and where funds are needed.

Quality of Water Improvement Program (QWIP)

The QWIP was established in 1974 through Chapter 373, F.S., to restore groundwater conditions altered by well drilling activities for domestic supply, agriculture, and other uses. The program's primary goal is to preserve groundwater and surface water resources through proper well abandonment. Plugging abandoned artesian wells eliminates the waste of water at the surface and prevents mineralized groundwater from contaminating surface water bodies. Thousands of wells constructed prior to current well construction standards were often deficient in casing, which interconnected aquifer zones and enabled poor-quality mineralized water to migrate into zones containing potable-quality water.

Plugging wells involves filling the abandoned well with cement or bentonite. Isolation of the aquifers is reestablished and the mixing of varying water qualities and free flow is stopped. Prior to plugging an abandoned well, geophysical logging is performed to determine the reimbursement amount, the proper plugging method, and to collect groundwater quality and geologic data for inclusion in the District's database. The emphasis of the QWIP is primarily in the SWUCA where the Upper Floridan aquifer is confined. Historically, the QWIP has proven to be a cost-effective method to prevent waste and contamination of potable ground and surface waters.

Stormwater Improvements - Implementation of Storage and Conveyance BMPs

The District's WMPs and SWIM programs implement stormwater and conveyance BMPs for preventative flood protection to improve surface water quality, particularly in urban areas, and enhance surface and groundwater resources. The BMPs involve construction of improvements identified and prioritized in the development of watershed management plans. Most of the activities are developed through cooperative funding with a local government entity, DEP, or other state funding.

The District has planned for approximately 40 storage and conveyance BMPs ongoing in FY2018. Three new BMPs that each exceed $1 million of District funds include the Upper Peninsula Regional Stormwater Improvement Area to design and prepare land for new flood relief and water quality treatment systems in the Old Tampa Bay and Hillsborough Bay Watersheds, stormwater drainage improvements around 8th Avenue and 44th Street South St. Petersburg, and construction of high capacity box culverts to reduce stormwater flooding along South Dale Mabry Highway in Tampa.

WRD Projects

The District has budgeted for 19 projects that meet the definition of WRD "Projects." As shown in Table 2, the total cost of these projects is approximately $92 million and a minimum of 55 million gallons per day (mgd) of additional water supply will be produced or conserved. At the start of FY2018 (October 1, 2017), the District has allocated approximately $14.3 million in the budget for these projects. This project funding is consistent with the Programmatic Budget activity code 2.2.1.

District funding for a number of these projects is matched to varying degrees by local cooperators including local governments, partnering water management districts, state agencies, and others. District funds for these projects are generated through a variety of mechanisms described in the **Funding Sources** section of this report. Each of the projects in Table 2 is described in detail below.

Alternative Water Supply Feasibility Research and Pilot Projects

The following projects are research and/or pilot projects designed to further the development of the innovative alternative water sources described in the RWSP. Most of these projects are components of the District's exploration of Lower Floridan aquifer (LFA) in Polk County as a viable water source for inland utilities. The data gathered from the LFA investigations will improve the District's understanding of this potential alternative water supply, enhance groundwater modeling of the LFA, and determine the practicality of developing the LFA as an alternative source in areas facing future water supply deficits. Data from these projects will also add to the geologic inputs in the Districtwide Regional Model (DWRM) for the LFA to assess potential withdrawal-related impacts to water resources in the District.

a. South Hillsborough Aquifer Recharge Program (SHARP) (N287)

Background - This is an aquifer recharge pilot testing project that will assess the effects of using up to 2 mgd of treated excess reclaimed water from the South-Central Hillsborough County reclaimed water system to directly recharge a non-potable zone of the Upper Floridan aquifer at the County's Big Bend aquifer storage and recovery (ASR) test well site. The project consists of the design, permitting, and construction of a reclaimed water recharge well system with associated wellhead and appurtenances, interconnects, and monitor wells. Project tasks include a multiyear aquifer recharge pilot study and groundwater modeling to evaluate water level improvements and water quality, including metals mobilization. The project may allow Hillsborough County to utilize excess reclaimed water flows, improve water levels within the MIA of the SWUCA, and potentially provide a salinity barrier against saltwater intrusion; as well as additional mitigation offsets for future groundwater supplies.

Linkage to the Regional Water Supply Plan - This project is specifically mentioned in Chapter 7, Section 1 of the Tampa Bay regional volume of the 2015 RWSP (page 142).

Schedule - The project was initiated in FY2011. The schedule was extended to conduct an additional cycle test running through in June 2018. With positive results, an operational permit may be obtained in December 2018.

b. Bradenton Aquifer Protection Recharge Well (N842)

Background - The project is for 30 percent design and third-party review of one recharge well in the Avon Park production zone of the Upper Floridan aquifer and associated facilities to help prevent nutrient loading to the Manatee River and Tampa Bay and to replenish groundwater in the MIA. The third-party review will provide necessary information to support funding in future years to complete design, permitting, and construction.

Linkage to the Regional Water Supply Plan - This project is not specifically mentioned in the 2015 RWSP but is consistent with the aquifer recharge projects discussed in Chapter 7, Section 6 of the Tampa Bay regional volume of the 2015 RWSP (page 135).

Schedule - The project is new for FY2018 and will commence by March 2018.

Table 2. FY2018 - FY2022 District Funding and Total Project Cost for Water Resource Development Projects

WRD Projects (WUCA, Project Number) [1]		Total Prior District Funding	FY2018 District Cost	FY2019 District Cost	FY2020 District Cost	FY2021 District Cost	FY2022 District Cost	Total Cost District + Cooperator	Funding Source[1 2]	Quantity developed or conserved[1]
1) Alternative Water Supply Feasibility Research and Pilot Projects (Programmatic Code 2.2.1.1)										
a)	South Hillsborough Aquifer Recharge Program (SHARP) (S) (N287)	$1,382,500	$0	$0	$0	$0	$0	$2,765,000	District, Hillsborough County	2 mgd
b)	Bradenton Aquifer Protection Recharge Well (S) (N842)	$0	$500,000	$900,000	$1,000,000	$100,000	$0	$5,000,000	District, City of Bradenton	NA
c)	PRMRWSA Partially Treated Water ASR (S) (N854)	$0	$120,500	$1,175,000	$2,475,000	$0	$0	$7,645,500	District, PRMRWSA	3 mgd
d)	Southern Hillsborough Aquifer Recharge Expansion (SHARE) Phase 1 (S) (N855)	$0	$2,265,000	$2,190,000	$395,000	$0	$0	$9,700,000	District, Hillsborough County	4 mgd
e)	Braden River Utilities ASR Feasibility (S) (N912)	$0	$1,945,625	$1,051,875	$0	$0	$0	$5,995,000	District, Braden River Utilities	NA
f)	Hydrogeologic Investigation of LFA in Polk County (S) (P280)	$8,991,076	$1,000,000	$1,989,059	$0	$0	$0	$11,980,135	District	NA
g)	Hydrogeologic Investigations of LFA Polk Central Regional Water Production Facility (S) (P924)	$244,550	$0	$0	$0	$0	$0	$244,550	District	NA
h)	Optical Borehole Imaging Data Collection from LFA Wells (S) (P925)	$100,200	$0	$0	$0	$0	$0	$167,000	District, USGS	NA
i)	Sources/Ages of Groundwater in LFA Wells (S) (P926)	$368,300	$0	$0	$0	$0	$0	$555,800	District, USGS	NA

Table 2 (Continued) FY2018 - FY2022 District Funding and Total Project Cost for Water Resource Development Projects

		Total Prior District Funding	FY2018 District Cost	FY2019 District Cost	FY2020 District Cost	FY2021 District Cost	FY2022 District Cost	Total Cost District + Cooperator	Funding Source[1] [2]	Quantity developed or conserved[1]
2) Facilitating Agricultural Resource Management Systems (FARMS) (Programmatic Code 2.2.1.2)										
a)	FARMS Projects (S, DPC, NTB) (H017) [3]	Annual Request	$6,002,560	$6,002,560	$6,002,560	$6,002,560	$6,002,560	Annual Request	District, FDACS, State, private farms	40 mgd
b)	Mini-FARMS Program (S, DPC, NTB) (H529) [3]	Annual Request	$100,000	$100,000	$100,000	$100,000	$100,000	Annual Request	District, FDACS	2 mgd
c)	IFAS BMP Implementation Team (S, DPC, NTB) (H579) [3]	Annual Request	$50,000	$50,000	$50,000	$50,000	$50,000	Annual Request	District, IFAS	NA
d)	FARMS Well Back-Plugging Program (S, DPC, NTB) (H015)	Annual Request	$30,000	$30,000	$30,000	$30,000	$30,000	Annual Request	District	NA
e)	FARMS Meter Accuracy Support (S, DPC, NTB) (P429) [3]	Annual Request	$25,000	$25,000	$25,000	$25,000	$25,000	Annual Request	District	NA
3) Environmental Restoration/Minimum Flows and Levels Recovery [4] (Programmatic Code 2.2.1.3)										
a)	MIA Recharge SWIMAL Recovery at Flatford Swamp (S) (H089)	$3,846,082	$2,000,000	$1,440,000	$6,000,000	$6,000,000	$6,000,000	$32,846,082	District	TBD
b)	Lower Hillsborough River Recovery Strategy (NTB) (H400)	$6,409,159	$0	$0	$0	$0	$0	$10,785,500	District, City of Tampa	TBD
c)	Pump Stations on Tampa Bypass Canal, Morris Bridge Sink (NTB) (H404)	$1,945,484	$185,000	$0	$0	$0	$0	$2,130,483	District	3.9 mgd
d)	Lower Hillsborough River Pumping Facility Construction (NTB) (N492)	$1,406,509	$0	$0	$0	$0	$0	$1,637,692	District, City of Tampa	TBD
e)	Lake Jackson Watershed Hydrology Investigation (S) (N554)	$206,118	$53,882	$40,000	$0	$0	$0	$400,000	District, Highlands County, City of Sebring	NA
Project Totals		**$24,899,978**	**$14,277,567**	**$14,993,494**	**$16,077,560**	**$12,307,560**	**$12,207,560**	**$91,852,742**		

[1.] The WUCA codes above are (S) - SWUCA, (DPC) - Dover/Plant City WUCA, (NTB) - Northern Tampa Bay WUCA. Other Acronyms: TBD - to be determined, NA - not applicable, mgd - million gallons per day, FDACS - Florida Department of Agriculture and Consumer Services, IFAS - University of Florida Institute of Agricultural Sciences, MIA - Most Impacted Area of the SWUCA, SWIMAL - Salt Water Intrusion Minimum Aquifer Level, USGS - United States Geological Survey.

[2.] Funding identified as the State of Florida is described in the *Funding Sources* section of this report.

[3.] Future funding budget estimates for which specific time frames are not yet determined are distributed evenly over four years.

c. PRMRWSA Partially Treated Water ASR (N854)

Background **-** The project consists of site feasibility testing, 30 percent design, and third-party review of a partially treated water ASR injection project located at the Pease River Manasota Regional Water Supply Authority (PRMRWSA) ASR facility. Feasibility pilot testing will be implemented using partially treated surface water pumped from Reservoir No. 1 to recharge the Upper Floridan aquifer at two existing ASR wells and subsequently delivered back to the raw water reservoir system. The third-party review which will provide the necessary information to support funding in future years to complete design, permitting, and construction.

Linkage to the Regional Water Supply Plan - This project is not specifically mentioned as a project option in the RWSP but is in line with the District's commitment to maximizing ASR utilization to offset traditional water supplies as described in Chapter 4, Section 6 of the Southern regional volume of the 2015 RWSP.

Schedule **-** The project is new for FY2018 and has commenced. Future milestones will be determined after the third-party review.

d. Southern Hillsborough Aquifer Recharge Expansion (SHARE) Phase 1 (N855)

Background **-** This project is for a third-party review of the County's 30 percent design, completion of design and permitting, and the initiation of construction for Phase 1 of the South Hillsborough Aquifer Recharge Expansion (SHARE) project. Pending third-party review and approval, the project will construct transmission mains, two recharge wells and associated monitoring wells, and install associated appurtenances. The SHARE project expands upon the county's current recharge project (N287) and upon completion will consist of up to seven recharge wells with a total recharge flow of up to 14 mgd in Southern Hillsborough.

Linkage to the Regional Water Supply Plan - This project is related to the SHARP project mentioned in Chapter 7, Section 1 of the Tampa Bay regional volume of the 2015 RWSP (page 142).

Schedule **-** The project is new for FY2018 and will commence by March 2018. Future milestones will be determined after the third-party review.

e. Braden River Utilities ASR Feasibility (N912)

Background **-** This project will perform a third-party review for reclaimed water ASR feasibility studies at two sites. Pending the review, the project may include the construction of an ASR well at each site, monitoring wells, and partial infrastructure necessary to sufficiently and cost-effectively perform two cycle tests in accordance DEP permit requirements.

Linkage to the Regional Water Supply Plan - This project is not specifically mentioned as a project option in the RWSP but is in line with the District's commitment to maximizing ASR utilization to offset traditional water supplies as described in Chapter 4, Section 6 of the Southern regional volume of the 2015 RWSP.

Schedule **-** The City funded and commenced the feasibility studies in 2017. The District will conduct the third-party review in early FY2018 and future milestones will be determined after the third-party review.

f. Hydrogeologic Investigation of the LFA in Polk County (P280)

Background - This project explores the LFA in Polk County to assess its viability as an alternative water supply source and to gain a better understanding of the Lower Floridan characteristics and groundwater quality. These data will enhance groundwater modeling of the LFA and determine the practicality of developing the aquifer as an alternative supply in areas of Polk County facing future water supply deficits. The overall scope of the investigation is to drill exploratory wells at up to three key locations chosen for their proximity to water demand centers and to improve data coverage for groundwater resource monitoring and the Districtwide Regulation Model. If the tests prove that the water quality and productivity are suitable, the water and facilities could be made available to utilities in Polk County. Regardless of the suitability of the LFA for water supply at each site, the exploration wells will be significant additions to the District's well monitoring network.

Linkage to the Regional Water Supply Plan - This project is specifically described in Chapter 7, Section 1 of the Heartland regional volume of the 2015 RWSP (page 131).

Schedule - This project was initiated in FY2012. Exploratory drilling is ongoing at sites near Crooked Lake and the Town of Frostproof. Drilling at a third site near Lake Wales is expected to begin by Summer 2018. The project is expected to continue through December 2020.

g. Hydrogeologic Investigations of LFA Polk Central Regional Water Production Facility (P924)

Background **-** This project explores the LFA at Polk County's Central Regional Water Production Facility to assess its viability as an alternative water supply source as well as to gain a better understanding of the LFA characteristics and groundwater quality in Polk County. Hydrogeologic testing will include set-up for optical borehole imaging (conducted by the USGS separately), up to 80 feet of core samples, two packer tests, provision for age-dating water quality sampling (conducted by the USGS separately), and monitoring of the LFA well for water quality and water levels.

Linkage to the Regional Water Supply Plan - This project is related to the Hydrogeologic Investigation of the LFA in Polk County (P280), which is described in Chapter 7, Section 1 of the Heartland regional volume of the 2015 RWSP.

Schedule - The project is ongoing and testing is expected to be complete in 2018.

h. Optical Borehole Imaging Data Collection from LFA Wells (P925)

Background **-** This project collects optical borehole imaging data from LFA wells in Polk County. This data will aid in understanding the aquifer characteristics and groundwater quality in Polk County. The USGS will test and provide the processed data to the District. Nine LFA well sites have been identified for testing.

Linkage to the Regional Water Supply Plan - This project is related to the Hydrogeologic Investigation of the LFA in Polk County (P280), which is described in Chapter 7, Section 1 of the Heartland regional volume of the 2015 RWSP.

Schedule - The project is ongoing and completion is anticipated by 2021.

i. Sources/Ages of Groundwater in LFA Wells (P926)

Background **-** This project collects isotope data from LFA wells from various sites in Polk County. The groundwater analysis will determine the sources and ages of the water from productive zones within the LFA and lower portions of the Upper Floridan aquifer. This data will aid in understanding the LFA characteristics (including flow paths) and groundwater quality in Polk County. The USGS will test and provide the processed data to the District. Six LFA well sites have been identified for testing.

Linkage to the Regional Water Supply Plan - This project is related to the Hydrogeologic Investigation of the LFA in Polk County (P280), which is described in Chapter 7, Section 1 of the Heartland regional volume of the 2015 RWSP.

Schedule - The project is ongoing and completion is anticipated by 2021.

Facilitating Agricultural Resource Management Systems (FARMS)

The FARMS Program is an agricultural BMP cost-share reimbursement program consisting of many site-specific projects. The program is a public/private partnership developed by the District and the Florida Department of Agriculture and Consumer Services (FDACS). The purpose of the FARMS Program is to provide an incentive to the District's agricultural community to implement agricultural BMPs that will provide resource benefits including water quality improvement, reduced Upper Floridan aquifer withdrawals, and enhancements to the water resources and ecology.

The FARMS Program has five specific goals that are critical in the District's strategy to manage water resources:
(1) Offset 40 mgd of groundwater within the SWUCA by 2025;
(2) Improve surface water quality impacted by mineralized groundwater within the Shell, Prairie, and Joshua Creek watersheds;
(3) Improve natural systems impacted by excess irrigation and surface water runoff within the Flatford Swamp region of the upper Myakka River watershed;
(4) Prevent groundwater impacts within the northern areas of the District; and
(5) Reduce frost-freeze pumpage by 20 percent within the Dover/Plant City WUCA.

a. FARMS Projects (H017)

Background - FARMS projects employ many of the agricultural water conservation strategies described in the RWSP to reduce groundwater withdrawals by increasing the water use efficiency of agricultural operations. The projects have the added benefit of reducing agricultural impacts to surface water features. The projects are public/private partnerships where the District provides financial incentives to farmers to increase the water use efficiency of their operations. Each project's performance is tracked to determine its effectiveness toward program goals. Since actual use of permitted quantities is dependent on hydrologic conditions, one of the objectives of FARMS projects is to reduce groundwater use regardless of hydrologic conditions. FARMS projects not only offset groundwater use with surface water, but increase the overall efficiency of irrigation water use.

Linkage to the Regional Water Supply Plan - The FARMS Program is discussed in Chapter 7, Section 2 of each regional volume of the 2015 RWSP, which includes a list of active FARMS projects within the respective region.

Schedule - The FARMS Projects are an annual request. As of September 2016, there are 182 approved FARMS projects including 136 in the SWUCA and 22 frost-freeze protection projects in the Dover/Plant City WUCA. The projects are projected to have a cumulative groundwater offset of 27 mgd Districtwide. The projected offset for the frost-freeze protection projects within the Dover/Plant City WUCA is 41 million gallons per freeze event. District staff continue to work with growers during the operational phase of projects to document the net improvement of water resources and develop continued and new partnerships to implement additional projects.

b. Mini-FARMS Program (H529)

Background - Mini-FARMS (Mini-Facilitating Agricultural Resource Management Systems) is a scaled down version of the District's FARMS cost-share reimbursement program to implement agricultural BMPs on agricultural operations of 100 irrigated acres or less to conserve water and protect water quality within the District. Mini-FARMS is intended to assist in the implementation of the District's RWSP, SWUCA Recovery Strategy, Dover Plant City WUCA Recovery Strategy, the Shell and Prairie Creek Watershed Management Plan, and the District's Strategic Plan. Similar to the FARMS projects, the Mini-FARMS Program implements BMPs on agricultural operations to reduce Upper Floridan groundwater use and improve water quality conditions throughout the District. The maximum cost-share amount available from Mini-FARMS projects is $5,000 per agricultural operation per year; and the maximum cost-share rate is 75 percent of project costs.

Linkage to the Regional Water Supply Plan - The Mini-FARMS Program is discussed in Chapter 7, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The Mini-FARMS projects are an annual request. As of September 2016, the District's portion of the Mini-FARMS Program has reimbursed 154 water conservation BMP projects since FY2006. The District's total reimbursement has been $578,523. The Mini-FARMS Program continues to be in strong demand from growers within the District.

c. Institute of Food and Agricultural Services (IFAS) BMP Implementation Project (H579)

Background - The primary goal of this project is to assist the IFAS in promoting statewide FDACS adopted agricultural BMPs, typical FARMS projects, and other practices. District participation in this project promotes the establishment of additional FARMS projects that provide water resource benefits throughout the District. Assistance is provided to growers by conducting site assessments,

selecting applicable BMPs, and filing notices of intent (NOIs) to implement the practices. Staff will follow up with growers to provide help understanding or implementing the BMPs if needed. Technical assistance may be provided directly or by coordinating with the appropriate FDACS staff or IFAS extension agents. Growers are informed of available BMP-related programs offered by FDACS, the water management districts, and other entities. Field demonstrations, workshops, and other educational opportunities are provided to growers and their employees. Technical assistance will also identify areas of future educational needs.

FDACS has developed and adopted ten BMP manuals covering poultry operations, cow/calf operations, citrus, vegetable and agronomic crops, nurseries, equine operations, specialty fruit and nut crops, sod operations, dairy, and agriculture wildlife for state imperiled species. Other documents and rules related to IFAS BMPs include: Best Management Practices for Agriculture in the Lake Okeechobee Watershed, Tri-County Agricultural Area Potato Farms, Conservation Plans for Specific Agricultural Operations, Florida Forest Service Silviculture Best Management Practices, Aquaculture Best Management Practices, and Florida Forestry Wildlife Best Management Practices for State Imperiled Species. As of March 2017, 3,981 NOIs have been established within the District.

Linkage to the Regional Water Supply Plan - This project assists the FARMS Program in reaching its agricultural water conservation goals, which are critical to the District's strategy to manage water resources. The IFAS BMP Implementation Project is discussed in Chapter 7, Section 2 of each regional volume of the 2015 RWSP.

Schedule - This project is an annual request.

d. FARMS Irrigation Well Back-Plugging Program (H015)

Background - This is an ongoing program for financial and technical assistance to well owners within the SWUCA to back-plug irrigation wells that produce highly mineralized groundwater. Back-plugging is a recommended practice to rehabilitate irrigation wells by identifying and restricting the intrusion of highly mineralized groundwater that often occurs from deeper aquifer zones in certain areas of the District. This program is separate from the QWIP, which focuses on proper well abandonment. The Well Back-Plugging Program was initiated in 2002 to improve water quality in watershed systems of the SWUCA and later became an addition to the FARMS Program in 2005.

Back-plugging can be far more cost-effective than new well construction. The procedure generally involves filling a lower borehole interval with gravel, then capping the filled interval with a neat cement plug. The best back-plugging results have been for wells with more defined stratification characteristics and with initial groundwater conductivity values exceeding 2,000 µ/cm.

Experience has shown that well back-plugging procedures often result in immediate relief from adverse effects of highly mineralized ground water used for irrigation, with dramatic improvement to crop yields. Participating growers frequently report significant improvement to plant growth and crop yields due to reduced mineralization of irrigation water after back-plugging their wells. Importantly, continued back-plugging efforts will maintain higher water quality standards in the downstream watershed area and continue to facilitate agriculture with sustainable, high quality water resources.

Linkage to the Regional Water Supply Plan - The FARMS Irrigation Well Back-Plugging Program is discussed in Chapter 7, Section 2 of each regional volume of the 2015 RWSP.

Schedule - This project is an annual request.

e. FARMS Meter Accuracy Support (P429)

Background - This project involves checking the accuracy of flow meters to verify that offsets obtained through FARMS projects are accurate. Water use permits with metering stipulations are required to have meters checked every five years to ensure the accuracy is within five percent. Once flow meter accuracy is verified, the results are shared with the landowner. If calibration or other repairs are needed, the landowner is responsible for making those repairs. Meter accuracy support will be offered through contracted services to eligible FARMS participants.

Linkage to the Regional Water Supply Plan - The FARMS Meter Accuracy Support is not

specifically mentioned in the 2015 RWSP but is a supporting component in the FARMS program discussed in Chapter 7, Section 2 of each regional volume of the 2015 RWSP.

Schedule - This project is an annual request.

Environmental Restoration and MFL Recovery Projects

Included in this section are five environmental restoration and MFL recovery projects that will benefit the water resources and support the implementation of MFLs. Chapter 2, Part B of the 2015 RWSP (each regional volume) outlines the District's strategy for establishing MFLs for surface waters, aquifers, and surface watercourses. Included this year is a project for the Flatford Swamp restoration, which was noted as a Surface Water Management project in prior budgets, but is now allocated as WRD since a project option has been selected. Three of the projects are portions of the recovery strategy to restore minimum flows to the Lower Hillsborough River (LHR). Flows in the LHR have been reduced by a variety of factors including increased use of the Hillsborough River Reservoir, surface water drainage alterations, reduction in surface storage, long-term rainfall patterns, and induced recharge due to groundwater withdrawals. The District set minimum flows for the LHR, Sulphur Springs, and the Tampa Bypass Canal in 2007 and the MFLs were incorporated as amendments to Rule 40D-8.041, F.A.C. The LHR's flows were below the adopted minimum flows in multiple dry years within the decade and the development of a recovery strategy was required by Florida Statutes. The recovery strategy will ensure that natural resources associated with the LHR are protected from significant harm by increasing freshwater flows during the months of April, May, and June to support the estuarine nursery habitat.

a. MIA Recharge SWIMAL Recovery at Flatford Swamp (H089)

Background - Hydrologic alterations and excess runoff have adversely impacted the Flatford Swamp in the upper Myakka watershed, and quantities of water should be removed from the swamp and surrounding areas to restore hydroperiods close to historic levels. The District has been conducting BMP evaluations to explore potential beneficial uses of water. In 2016, evaluations began on an injection recharge option that would use excess flow affecting the swamp to recharge the Upper Floridan aquifer in the vicinity of the MIA of the SWUCA to slow saltwater intrusion. The recharge system would assist with the SWUCA Recovery Strategy's goal of meeting the SWIMAL to help recover and protect groundwater resources in/near the MIA. The evaluation includes a test well in the Flatford Swamp to explore groundwater quality and aquifer characteristics.

Linkage to the Regional Water Supply Plan - This project is discussed as an ongoing WRD Project in the Southern regional volume of the 2015 RWSP, Chapter 7, page 147 under its previous title "Upper Myakka/Flatford Swamp Hydrologic Restoration and Implementation." The SWIMAL is described in Chapter 2 (page 22).

Schedule - The feasibility study was completed at the beginning of 2017. Tasks for FY2018 involve constructing a test well at Flatford to explore groundwater quality and aquifer characteristics. Anticipated for FY2019 is the recharge testing program.

b. Lower Hillsborough River Recovery Strategy (H400)

Background - As established in 2007, the Lower Hillsborough River (LHR) recovery strategy outlined six projects and a timeline for their implementation. Four projects are jointly funded by the District and the City of Tampa and two are being implemented by the District. These projects are: Tampa Bypass Canal diversions, modifications at Sulphur Springs to the lower weir, upper weir and pump station, the Blue Sink analysis and project, the Morris Bridge Sink project, the transmission pipeline evaluation and project, and the investigation of storage or additional supply options. Tampa Bypass Canal diversions have been implemented when needed, since December 31, 2017 under project H402. The modifications to the weirs and pump station at Sulphur Springs have been completed. The Blue Sink analysis has been completed and the pump station and pipeline project that will divert up to 2 mgd to the base of the Hillsborough River dam will be complete in October 2017. The design and construction of infrastructure to divert up to 3.9 mgd of water from Morris Bridge Sink through the Tampa Bypass Canal is ongoing and funded under project H404. Based on a peer-review completed in 2008, the transmission pipeline project is no longer considered a viable recovery project for the LHR. Additional water sources and supply options to help meet minimum flows are under consideration.

District funding in FY2018 will be used for biological sampling in support of the second five-year assessment of the minimum flows for the LHR. This information will be used in the five-year assessment that must be conducted by rule in 2018. In addition, available information will be used for the 2018 annual assessment that will be conducted internally as a requirement of the Water Use Permit issued for Morris Bridge Sink.

Linkage to the Regional Water Supply Plan - The MFL recovery strategy for the LHR is discussed in the Tampa Bay regional volume of the 2015 RWSP in Chapter 2 (page 36). The recovery strategy projects are described in Chapter 7 (page 147).

Schedule - The second LHR five-year assessment will be completed in 2018.

c. Pump Station on Tampa Bypass Canal, Morris Bridge Sink (H404)

Background - This project will construct a pump station and pipeline components to divert surface water from the Morris Bridge Sinkhole to the upper pool of the Tampa Bypass Canal. A second pump station will be used to transfer water to the canal's middle pool, where it can be conveyed through the reservoir to the LHR during low flow periods to help implement minimum flows.

Linkage to the Regional Water Supply Plan - This project is specifically described in the Tampa Bay regional volume of the 2015 RWSP. Chapter 2, Section 2 describes the project as a component of the recovery strategy (page 36) and water reservation established for the Morris Bridge Sink (page 39). The project is also listed in Chapter 7, Section 2.

Schedule - The project commenced in February 2016 and is on-going. Completion of the project depends upon the evaluation and feasibility of the Tampa Augmentation Project (TAP, project N751) in 2018.

d. Lower Hillsborough River Pumping Facilities (N492)

Background - This is a multiyear cooperative funding project with the City of Tampa that was revised in 2017. Since 2008, the District has operated temporary pumping stations (H402) at structures S-162, S-161 and at the Hillsborough River dam to transfer up to 7.1 mgd of water from the Tampa Bypass Canal to the Hillsborough River reservoir and up to 5.3 mgd from the reservoir to the river below the dam to meet required minimum flows. The temporary facilities were used to get the recovery strategy under way while the City evaluated options and designs for permanent pumping facilities at structure S-161 and the dam. In 2017, the City agreed to take over operation of the temporary pumping stations at structure S-161 and the dam. In addition, the city is constructing a control gate in the dam that can pass the full amount of water needed to meet minimum flows in the LHR. This control gate will replace the pump station at the dam and will be co-funded by the District under project N492.

Linkage to the Regional Water Supply Plan - This project is discussed in the Tampa Bay regional volume of the 2015 RWSP, Chapter 1 (page 6), Chapter 2 (page 36), and Chapter 7 (page 147).

Schedule - The city took over operation of the pump stations in the fall of 2017. The control gate is anticipated to be completed in 2018.

e. Lake Jackson Watershed Hydrology Investigation (N554)

Background - Lake Jackson is a 3,412-acre lake located in the City of Sebring and is one of nine lakes in Highlands County with an established MFL. Lake Jackson has not met its MFL in over a decade. Residents and local officials have voiced concerns over persistent low water levels potentially related to storm water canal structures, potential flow through the shallow aquifer to the canals, and possible leakage in the lake's hardpan bottom. This hydrologic investigation will collect data, attempt to identify the causes of the low water level in Lake Jackson and Little Jackson Lake over the last decade, and develop cost-effective recovery strategies. Aspects of the project include:

- An assessment of the storm water structures, including the underwater portions and channel flow.
- Installation of groundwater, lake level, and weather monitoring networks in order to calculate a

more accurate lake water budget.

- Modeling the effects of a proposed subsurface wall on the lateral movement of water from Lake Jackson through the shallow aquifer to downstream sources and calculating its potential improvement to the level of Lake Jackson.

The project will include a cost-benefit analysis, if the investigation and modeling shows the subsurface wall or other recovery strategies may be beneficial to the lake water levels.

Linkage to the Regional Water Supply Plan - This project is specifically identified in Chapter 7, Section 2, in the Heartland regional volume of the 2015 RWSP (page 137).

Schedule - The project is ongoing. Quarterly field assessments of hydrologic conditions will commence in early FY2018 and will continue through 2019. A watershed management plan deliverable is expected in 2020.

Water Supply Development Assistance

Regional water supply authorities, local governments, and public and privately-owned water utilities typically have the lead role in implementing water supply development projects (Section 373.705, F.S.). The District provides funding assistance to these entities for projects that are consistent with the District's RWSP and meet one of the following criteria: the project supports establishment of a dependable, sustainable supply of water that would not otherwise be financially feasible to develop; the project provides substantial environmental benefits by preventing or limiting adverse water resource impacts, but needs funding assistance to be economically competitive with other project alternatives; or the project significantly implements the reuse, storage, recharge, or conservation of water in a manner that helps sustain regional water sources. Priority consideration for funding assistance is given to water supply projects that replace an existing source in order to help achieve an MFL, implement reuse that helps to eliminate domestic wastewater ocean outfalls, or reduces/eliminates the adverse effects of competition between legal water users and natural systems.

The District has 75 budgeted or ongoing water supply development projects in FY2018. As shown in Tables 3 through 9, the District is funding approximately $35.3 million in FY2018 for water supply development assistance. This amount includes $3 million of Springs Initiative funding provided by DEP and budgeted by the District. The project budgets shown are consistent with the Programmatic Budget activity code 2.2.2. The water supply development projects are categorized in the tables as surface water projects, regional potable water interconnects, reclaimed water projects, brackish groundwater development, aquifer recharge and ASR projects, and conservation projects. Some projects in the aquifer recharge and ASR category may also have reclaimed water components. Projects within each category are sorted by the project number.

Additional funding needs for water supply development projects for the second through fifth years of the Work Program are identified in the tables below. As the District budget is adopted on an annual basis, the future funding is projected based their estimated costs and schedules. The majority of water supply development projects are funded within one year, although some large projects may have a construction phase planned in a future year that will require a relatively large amount of funding. Projects that are listed but have no FY2018 funding represent ongoing projects that were funded in a prior year. The statute revisions also require identification of Projects that assist a recovery or prevention strategy. Such projects are identified by location codes in the project titles to identify whether they are located with a WUCA or priority springs watershed.

The future funding in the tables only represents water supply development assistance for projects that have been proposed to the District through the Cooperative Funding Initiative. The District expects new water supply projects to be proposed every year. On average, the total for reclaimed water projects will require approximately $20 million each year and future conservation projects may require approximately $1.25 million annually. The amount needed for new regional interconnects and water treatment facilities can vary greatly from year to year, peaking as large infrastructure projects move from design to construction phases.

In addition to water supply development, the District also supports water supply planning efforts through the Cooperative Funding Initiative to assist governmental entities in selecting the most beneficial projects and practices. The planning projects are listed separately from the water supply development projects in Table 10 because they are budgeted under the Programmatic Budget activity code 1.1.1. There were no new water supply planning projects approved in the FY2018 budget, but three ongoing reclaimed water master plans are included.

Table 3. Surface Water Projects

Project Number	Water Supply Development Assistance - Surface Water Projects (Programmatic Budget 2.2.2.1)	Prior District Funding	FY2018 Funding	FY2019 Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	Total Project Cost	Supply (mgd)	Rank
N881	Arcadia Golf Course Reclaimed Water Storage Reservoir	$0	$225,000	$0	$0	$0	$0	$300,000	0.100	H
Total Surface Water Projects		**$0**	**$225,000**	**$0**	**$0**	**$0**	**$0**	**$300,000**	0.100	

Table 4. Regional Potable Interconnects

Project Number	Water Supply Development Assistance - Regional Potable Water Interconnects (Programmatic Budget 2.2.2.2)	Prior District Funding	FY2018 Funding	FY2019 Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	Total Project Cost	Supply (mgd)	Rank
H094	Polk County Partnership*	$18,500,000	$10,000,000	$0	$0	$0	$0	$28,500,000	NA	1A
N416	PRMRWSA Regional Loop System Phase 1 DeSoto to Punta Gorda	$6,000,000	$0	$0	$0	$0	$0	$12,000,000	NA	O
N823	PRMRWSA Regional Integrated Loop System Phase 3B	$760,000	$470,000	$4,159,500	$5,366,000	$3,544,500	$0	$28,600,000	NA	H
Total Regional Interconnect Projects		**$25,260,000**	**$10,470,000**	**$4,159,500**	**$5,366,000**	**$3,544,500**	**$0**	**$69,100,000**	0.000	

*H094 Polk County Partnership dollars have been redistributed to the PRWC Projects ((N882, N905, and N928)

Table 5. Reclaimed Water Projects

Project Number	Water Supply Development Assistance - Reclaimed Water Projects (Programmatic Budget 2.2.2.3)	Prior District Funding	FY2018 Funding	FY2019 Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	Total Project Cost	Benefit (mgd)	Rank
H076	TECO Polk Power Station Reclaimed Water Interconnects	$49,587,565	$0	$0	$0	$0	$0	$97,345,270	10.000	O
N024	Polk County NWRUSA Storage and Pumping Station	$2,613,020	$0	$0	$0	$0	$0	$5,226,041	NA	O
N339	Winter Haven #3 Reclaimed Interconnect, Storage, and Pumping	$2,750,000	$0	$0	$0	$0	$0	$5,500,000	0.800	O
N536	Auburndale Polytechnic Reclaimed Water Storage and Transmission	$1,500,000	$0	$0	$0	$0	$0	$3,000,000	1.500	O
N555	Town of Dunedin San Christopher Reclaimed Water Storage Tanks	$1,082,910	$0	$0	$0	$0	$0	$2,022,910	2.000	O
N556	Charlotte County Reclaimed Water Expansion Phase 3	$4,403,750	$311,250	$0	$0	$0	$0	$9,430,000	2.230	1A
N667	City of North Port Reclaimed Water Transmission Main Phase 3	$669,420	$0	$0	$0	$0	$0	$1,329,420	0.360	O
N696	Hernando County US19 Reclaimed Water Transmission, Phase 1	$9,029,633	$0	$0	$0	$0	$0	$12,029,633	1.700	O
N697	Pasco County Tampa Bay Golf/Country Club Reclaimed Water Expansion	$150,000	$0	$0	$0	$0	$0	$300,000	0.100	O
N711	Lakewood Ranch Stewardship District Reclaimed Water Transmission	$2,150,000	$150,000	$0	$0	$0	$0	$4,600,000	1.000	O

Table 5. Reclaimed Water Projects (continued)

Project Number	Water Supply Development Assistance - Reclaimed Water Projects (Programmatic Budget 2.2.2.3)	Prior District Funding	FY2018 Funding	FY2019 Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	Total Project Cost	Benefit (mgd)	Rank
N743	Starkey Ranch Reclaimed Water Transmission Project B	$601,000	$354,000	$0	$0	$0	$0	$1,910,000	0.410	1A
N751	City of Tampa Augmentation Project	$1,500,000	$0	$0	$0	$0	$0	$3,000,000	Study	O
N755	Hillsborough County Integrated Water Resource Feasibility/Design Phase 3	$250,000	$200,000	$0	$0	$0	$0	$900,000	Study	1A
N772	Polk County NERUSA Loughman/Ridgewood Reclaimed Water Transmission	$250,500	$1,002,000	$0	$0	$0	$0	$2,505,000	0.345	1A
N776	Hillsborough County 19th Ave Reclaimed Water Transmission Main	$1,000,000	$1,713,671	$0	$0	$0	$0	$5,762,671	1.200	H
N778	Pasco County Bexley South Reclaimed Water Transmission Phase 2	$112,500	$0	$0	$0	$0	$0	$225,000	0.200	O
N791	Pasco County Starkey Ranch Reclaimed Water Transmission Project C	$336,661	$11,266	$108,873	$0	$0	$0	$913,600	0.430	1A
N792	Pasco County Reclaimed Water Transmission Main Ridge Golf Course	$200,000	$1,050,000	$0	$0	$0	$0	$2,500,000	0.680	1A
N796	City of Winter Haven Reuse Interconnect and Aquifer Recharge	$150,000	$0	$0	$0	$0	$0	$300,000	Study	O
N804	Hillsborough County Sun City Golf Courses Reclaimed Water Expansion	$1,125,000	$1,125,000	$0	$0	$0	$0	$4,500,000	1.500	1A
N805	City of Tarpon Springs Westwinds/Grassy Pointe Reclaimed Water System	$297,708	$0	$0	$0	$0	$0	$595,417	0.070	O
N817	Hillsborough County Countywide Reclaimed Water Major User Connect	$250,000	$250,000	$0	$0	$0	$0	$1,000,000	0.350	1A
N837	Pasco County Cypress Preserve Reclaimed Water Transmission	$0	$17,500	$157,500	$0	$0	$0	$350,000	0.190	H
N862	Polk County Utilities NERUSA CR 547 Reclaimed Water Transmission Phase 1	$0	$50,000	$384,750	$0	$0	$0	$869,500	0.377	H
N863	Hillsborough County Summerfield Sports Complex	$0	$77,500	$0	$0	$0	$0	$155,000	0.022	H
N868	Polk County Utilities NERUSA Ernie Caldwell Blvd Reclaimed Water Transmission	$0	$1,056,500	$0	$0	$0	$0	$2,113,000	0.414	H
N888	Haines City Rapid Infiltration Basin and Reuse Improvements	$0	$112,500	$112,500	$0	$0	$0	$300,000	NA	H
N898	Haines City Reclaimed Water Tank and Pump Stations Project	$0	$225,000	$0	$705,000	$2,820,000	$0	$5,000,000	NA	M
N899	Polk County Utilities Reclaimed Water Recharge Study in DPC WUCA & NW Polk	$0	$250,000	$250,000	$0	$0	$0	$1,098,000	1.500	H
N918	Polk County Utilities NERUSA FDC Grove Road Reclaimed Water Transmission	$0	$848,000	$0	$0	$0	$0	$1,696,000	0.142	H
N920	West Villages District Reclaimed Water transmission to South Sarasota County	$0	$356,000	$0	$0	$0	$0	$712,000	0.250	H

Table 5. Reclaimed Water Projects (continued)

Project Number	Water Supply Development Assistance - Reclaimed Water Projects (Programmatic Budget 2.2.2.3)	Prior District Funding	FY2018 Funding	FY2019 Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	Total Project Cost	Benefit (mgd)	Rank
P130	City of Crystal River/Duke Energy Reclaimed Water Interconnection	$4,290,000	$0	$0	$0	$0	$0	$6,573,625	0.440	O
WC02	Citrus County Sugarmill Woods Advanced Wastewater Treat	$4,000,000	$0	$0	$0	$0	$0	$8,000,000	NA	O
Total Reclaimed Water Projects		**$88,299,667**	**$9,160,187**	**$1,013,623**	**$705,000**	**$2,820,000**	**$0**	**$191,762,087**	**28.210**	

Table 6. Brackish Groundwater Projects

Project Number	Water Supply Development Assistance - Brackish Groundwater Development Projects (Programmatic Budget 2.2.2.4)	Prior District Funding	FY2018 Funding	FY2019 Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	Total Project Cost	Supply (mgd)	Rank
N600	Punta Gorda Reverse Osmosis Project - Brackish Wellfield Investigation	$1,500,000	$0	$0	$0	$0	$0	$3,000,000	Study	O
N780	Punta Gorda Reverse Osmosis Project - Facility Construction	$1,000,000	$6,575,000	$6,575,000	$0	$0	$0	$29,200,000	4.000	O
N882	PRWC West Polk County Lower Floridan Deep Wells	$4,650,000	$0	$0	$0	$0	$0	$166,754,000	15.000	O
N905	PRWC Southeast Wellfield Lower Floridan	$5,900,000	$0	$0	$0	$14,389,717	$64,200,272	$352,385,000	30.000	O
Total Brackish Groundwater Projects		**$13,050,000**	**$6,575,000**	**$6,575,000**	**$0**	**$14,389,717**	**$64,200,272**	**$551,339,000**	**49.000**	

Table 7. Aquifer Recharge and Aquifer Storage and Recovery Projects

Project Number	Water Supply Development Assistance - Aquifer Recharge & Aquifer Storage and Recovery Projects (Programmatic Budget 2.2.2.5)	Prior District Funding	FY2018 Funding	FY2019 Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	Total Project Cost	Supply (mgd)	Rank
K120	City of North Port Dry Season Potable Water ASR	$988,570	$0	$0	$0	$0	$0	$2,022,640	0.200	O
K269	Sarasota County North Reclaimed Water ASR	$1,686,382	$0	$0	$0	$0	$0	$3,207,900	0.300	O
L608	City of Palmetto Reclaimed Water ASR	$2,167,112	$0	$0	$0	$0	$0	$4,126,224	NA	O
N435	Bradenton Surface Water ASR	$2,207,553	$142,447	$0	$0	$0	$0	$4,700,000	0.410	1A
N665	City of Clearwater Groundwater Replenishment Project Phase 3	$3,685,600	$8,000,000	$4,672,400	$0	$0	$0	$32,716,000	2.400	1A
N833	City of North Port Permanent ASR Facilities	$110,000	$230,000	$0	$0	$0	$0	$680,000	TBD	H
Total Aquifer Recharge/ASR Projects		**$10,845,217**	**$372,447**	**$0**	**$0**	**$0**	**$0**	**$32,762,364**	**3.310**	

Table 8. Water Conservation Projects

Project Number	Water Supply Development Assistance - Conservation Rebates, Retrofits, Etc. Projects (Programmatic Budget 2.2.2.7)	Prior District Funding	FY2018 Funding	FY2019 Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	Total Project Cost	Benefit (mgd)	Rank
N655	City of St. Petersburg Toilet Replacement Program Phase 15	$50,000	$0	$0	$0	$0	$0	$100,000	0.014	O
N716	Polk County Customer Portal Pilot Project	$10,000	$0	$0	$0	$0	$0	$20,000	0.090	O
N728	City of St. Petersburg Sensible Sprinkling Program Phase 7	$50,000	$0	$0	$0	$0	$0	$100,000	0.041	O
N757	Bay Laural Irrigation Controller/ET Sensor Upgrade	$41,678	$0	$0	$0	$0	$0	$83,356	0.024	O
N779	Marion County Toilet Rebate Program Phase 4	$16,000	$16,000	$0	$0	$0	$0	$64,000	0.010	1A
N789	Pasco County ULV Toilet Rebate Program Phase 10	$50,000	$0	$0	$0	$0	$0	$100,000	0.014	O
N806	Manatee County Toilet Rebate Project Phase 10	$113,250	$0	$0	$0	$0	$0	$226,500	0.420	O
N808	City of Venice Toilet Rebate and Retrofit Project	$29,450	$0	$0	$0	$0	$0	$58,900	0.013	O
N815	City of Arcadia South Distribution Looping Project	$236,250	$0	$0	$0	$0	$0	$315,000	NA	O
N819	City of St. Petersburg Toilet Rebate Program Phase 16	$50,000	$0	$0	$0	$0	$0	$100,000	0.014	O
N820	Polk County Landscape & Irrigation Evaluation Program	$41,400	$0	$0	$0	$0	$0	$82,800	0.042	O
N822	WRWSA Enhanced Regional Irrigation Evaluation/Conservation Incentives	$100,000	$0	$0	$0	$0	$0	$200,000	0.087	O
N840	Venice Advanced Metering Analytics Project	$0	$11,000	$0	$0	$0	$0	$22,000	0.004	H
N845	Pasco County Florida Water Star Pilot Project	$0	$35,000	$0	$0	$0	$0	$70,000	0.013	H
N846	Polk County Landscape and Irrigation Evaluation	$0	$42,500	$0	$0	$0	$0	$85,000	0.042	H
N849	Venice Toilet Rebate and Retrofit Project Phase 6	$0	$22,500	$0	$0	$0	$0	$45,000	0.005	H
N852	Pasco County ULV Toilet Rebate Program Phase 11	$0	$50,000	$0	$0	$0	$0	$100,000	0.014	H
N860	Citrus County Water Sense Labeled Irrigation Controller Account Credit	$0	$16,875	$0	$0	$0	$0	$33,750	0.017	H
N875	St Petersburg Florida Water Star Rebate Pilot Project	$0	$24,850	$0	$0	$0	$0	$49,700	0.009	H
N876	New Port Richey Toilet Rebate Program Phase 4	$0	$7,470	$0	$0	$0	$0	$14,940	0.002	H
N877	Manatee County Toilet Rebate Project Phase 11	$0	$113,250	$0	$0	$0	$0	$226,500	0.040	H

Table 8. Water Conservation Projects (continued)

Project Number	Water Supply Development Assistance - Conservation Rebates, Retrofits, Etc. Projects (Programmatic Budget 2.2.2.7)	Prior District Funding	FY2018 Funding	FY2019 Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	Total Project Cost	Benefit (mgd)	Rank
N890	St Petersburg Residential Clothes Washer Rebate Pilot Project	$0	$12,350	$0	$0	$0	$0	$24,700	0.002	H
N909	St Petersburg Sensible Sprinkling Program Phase 8	$0	$50,000	$0	$0	$0	$0	$100,000	0.056	H
N921	Bay Laurel Center CDD Irrigation Controller/ET Sensor Upgrade Project	$0	$43,760	$0	$0	$0	$0	$87,520	0.023	H
N922	Bay Laurel Center CDD Florida Water Star Rebate Pilot	$0	$26,250	$0	$0	$0	$0	$52,500	0.010	H
P920	Polk Regional Water Cooperative Outdoor BMPs	$166,075	$0	$0	$0	$0	$0	$332,150	0.052	O
P921	Polk Regional Water Cooperative Indoor Conservation Incentives	$121,275	$0	$0	$0	$0	$0	$242,550	0.087	O
P922	Polk Regional Water Cooperative Florida Water Star Builder Rebate Program	$350,000	$0	$0	$0	$0	$0	$350,000	0.066	O
Total Conservation Rebates, Retrofits, Etc.		**$1,425,378**	**$471,805**	**$0**	**$0**	**$0**	**$0**	**$3,286,866**	**1.211**	

Table 9. Total Summary of Funding for Water Supply Development Projects

Water Supply Development Assistance Project Totals (Programmatic Budget 2.2.2)	Prior District Funding	FY2018 Funding	FY2019 Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	Total Project Cost	Supply (mgd)
Surface Water Projects	$0	$225,000	$0	$0	$0	$0	$300,000	0.100
Regional Potable Water Interconnects	$25,260,000	$10,470,000	$4,159,500	$5,366,000	$3,544,500	$0	$69,100,000	0.000
Reclaimed Water Projects	$88,299,667	$9,160,187	$1,013,623	$705,000	$2,820,000	$0	$191,762,087	28.210
Brackish Groundwater Development Projects	$13,050,000	$6,575,000	$6,575,000	$0	$14,389,717	$64,200,272	$551,339,000	19.000
Aquifer Recharge and Aquifer Storage & Recovery Construction Projects	$10,845,217	$8,372,447	$4,672,400	$0	$0	$0	$47,452,764	3.310
Conservation Rebates, Retrofits, Etc. Projects	$1,425,378	$471,805	$0	$0	$0	$0	$3,286,866	1.211
Total Funding	**$138,797,830**	**$35,274,439**	**$16,420,523**	**$6,071,000**	**$20,754,217**	**$64,200,272**	**$861,572,717**	**81.831**

Table 10. Water Supply Planning Projects

Project Number	Water Supply Planning (Programmatic Budget 1.1.1.1)	Prior District Funding	FY2018 Funding	FY2019 Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	Total Project Cost	Supply (mgd)	Rank
N781	Hernando County Reclaimed Water Master Plan	$75,000	$0	$0	$0	$0	$0	$150,000	NA	O
N816	Oldsmar Reclaimed Water Master Plan	$37,500	$0	$0	$0	$0	$0	$75,000	NA	O
P928	PRWC Peace Creek Integrated Water Supply Plan	$950,000	$0	$450,000	$550,000	$0	$0	$122,885,000	5.000	O
Total Planning Projects		**$1,062,500**	**$0**	**$450,000**	**$550,000**	**$0**	**$0**	**$123,110,000**	**5.000**	

The WUCA location codes above are (S) - SWUCA, (DPC) - Dover/Plant City WUCA, (NTB) - Northern Tampa Bay WUCA. (Springs) indicates project is located in vicinity of a priority springshed. Other Acronyms: ASR - aquifer storage and recovery, BMPs - best management practices, ET - Evapotranspiration, mgd - million gallons per day, NERUSA/NWRUSA - The Northeast/Northwest Regional Utility Service Areas of Polk County Utilities, PRMRWSA - Peace River Manasota Regional Water Supply Authority, PRWC - Polk Regional Water Cooperative, TECO - Tampa Electric Company, WRWSA - Withlacoochee Regional Water Supply Authority.

Project Ranking Codes:
O - The Project is ongoing with funds from prior year(s) and no additional project funding is required in FY2018.
1A - Priority ranking for District Initiatives and multiyear funding for ongoing projects.
H - High Priority. District staff recommended project funding to Governing Board.
M - Medium Priority. The project was recommended by staff but may require additional information to move forward, has less stellar resource benefit, or other issue.
L - Low Priority. The project is not likely to move forward, or has minimal resource benefit, or was considered the responsibility of local entity.

Descriptions of Water Supply Development Projects

Descriptions of the water supply development and water supply planning projects included in the District's FY2018 budget are provided below, sorted by category and project code. The inclusion of these projects in the Work Program provides a mechanism for DEP to formally evaluate the projects for consistency with the goals of the District's 2015 RWSP. By adoption, the projects are incorporated into the District's RWSP and become potentially eligible for state funding.

Surface Water Projects

N881 Arcadia Golf Course Reclaimed Water Storage Reservoir

Description - This project will design, permit and construct a 600,000-gallon storage pond, approximately 600 feet of reclaimed water transmission mains, and other necessary appurtenances to supply additional reclaimed water to the Arcadia Golf Course. The District anticipates recategorizing the project under Reclaimed Water (category 2.2.2.3) early in FY2018.

Linkage to RWSP - Though not specifically listed, the expansion of reuse in Arcadia is mentioned as a water supply development project in the Southern regional volume of the 2015 RWSP, Chapter 5, Section 3, page 111.

Schedule – The project will begin in FY2018 and the end date is to be determined.

Regional Potable Interconnects

H094 Polk County Partnership

Description - This project includes support of regional cooperation within the Polk County and the development of regional AWS projects that can achieve 30 mgd of base supply. The District Governing Board adopted Resolution No. 15-07 providing timing and guidance for this project including $40 million to be provided in $10 million increments based on achievement of certain milestones. The first $30 million was committed in FY2015 through FY2017 for meeting milestones in support of AWS development, execution of project plan agreements, and approval of cooperator's governance and establishment of the Polk Regional Water Cooperative (PRWC). In April 2017, the Governing Board approved the PRWC's selection of three AWS projects, meeting the milestone of the final $10 million for FY2018. The three projects are West Polk County Deep Wells (N882), Polk Southeast Wellfield (N905), and the Peace Creek Integrated Water Supply Plan (N928). The Governing Board approved the use of H094 funding allocations to the initial phases of these projects.

Linkage to RWSP - The formation of regional entity in Polk County to develop a regional grid system is listed as an ongoing water supply development project in the Heartland regional volume of the 2015 RWSP, Chapter 6, Section 1.1, page 117.

Schedule - The project began in FY2015 and the Polk Regional Water Cooperative (PRWC) was founded in 2016. The District anticipates remaining funds will be allocated to PRWC projects as they achieve their milestones.

N416 PRMRWSA Regional Loop System, Phase 1 DeSoto to Punta Gorda

Description - This project is part of the PRMRWSA's Regional Integrated Loop Pipeline System providing a regional water transfer and delivery system for existing and future water sources within the PRMRWSA's four-county service area. This project will design and construct a potable water transmission interconnection between the PRMRWSA's Project Prairie pump station in DeSoto County and the City of Punta Gorda's Shell Creek Water Treatment Facility. The design will include approximately 6.3 miles of 24-inch diameter pipeline extending from the southern terminus of the PRMRWSA's DeSoto Regional Transmission Main, south to the Shell Creek Facility in Charlotte County. The project will enable delivery of up to 4 mgd from the Peace River Facility to the Shell Creek Facility and up to 2 mgd from the Shell Creek to the regional system. Benefits of the project include critical back-up supply for DeSoto County, increased water system reliability and resource sharing opportunities for the City of Punta Gorda and the region, and new supply availability along U.S. 17, a growth corridor in Charlotte County.

Linkage to RWSP - The project is listed in the Southern regional volume of the 2015 RWSP, Chapter 5, pages 116 and 117.

Schedule - The project began in FY2016, is ongoing, and the end date is currently projected for 2020.

N823 PRMRWSA Regional Integrated Loop System Phase 3B

Description - This project is part of the PRMRWSA's Regional Integrated Loop Pipeline System providing a regional water transfer and delivery system for existing and future water sources within the PRMRWSA's four-county service area. The Phase 3B Interconnect project will extend the PRMRWSA's regional transmission system from its current northern terminus located immediately west of the Sarasota County landfill along Cow Pen Slough, north about 4.2 miles to SR-72. The project may also include pumping, chemical trim, metering, and storage facilities. This transmission main extension will facilitate delivery of regional water supplies to the northern portion of Sarasota County's service area and, in conjunction with future Phase 3C and 3D interconnections, will enable interconnection of Manatee County's water system with the regional water supply system.

Linkage to RWSP - The project is listed in the Southern regional volume of the 2015 RWSP, Chapter 5, pages 116 and 117.

Schedule - The project commenced in 2016, is ongoing, and the end date is currently projected for 2020.

Reclaimed Water Projects

H076 TECO Polk Power Station Reclaimed Water Interconnects

Description - The project will design, permit, and construct approximately 102,000 feet of reclaimed water transmission mains from the Southwest Polk County service area to the City of Mulberry, pumping infrastructure, 10 mgd of advanced treatment (filtration and membranes), a 0.5 million gallon storage tank, and a 2 mgd concentrate deep disposal well. The project will utilize effluent from the City of Lakeland, Polk County, and the City of Mulberry at TECO's Polk Power Station expansion. The project will supply 10 mgd of reclaimed water in the SWUCA and in the District-related portion of the CFWI. The project is sized to a 2045 build-out capacity of 17 mgd (7 mgd future expansion funding by TECO only).

Linkage to RWSP - The project is listed as a water supply development project in the Heartland regional volume of the 2015 RWSP, Chapter 6, Section 3, page 124.

Schedule - The project began in FY2010 and will be completed in early FY2018.

N024 Polk County NWRUSA Storage and Pumping Station

Description - This project consists of a feasibility study that includes construction of an exploratory well followed by the design, permitting, construction, and testing of a 1 mgd reclaimed water LFA ASR facility. The project includes construction of two monitoring wells, design and construction of associated surface facilities to connect the ASR well to the associated wastewater and reclaimed water facilities, preparation and completion of necessary well construction permits, cycle testing, and an application for an operation permit.

Linkage to RWSP - The project is listed as a water supply development project in the Heartland regional volume of the 2015 RWSP, Chapter 6, Section 3, page 124.

Schedule - The project began in FY2009 and will be completed in early FY2018.

N339 Winter Haven #3 Reclaimed Interconnect, Storage, and Pumping

Description - The project consists of design, permitting, and construction of 23,000 feet of 20-inch reclaimed water interconnect between the City's two reuse systems, a 5 mgd reclaimed water pump station, and a 5 million gallon storage tank. The project will transfer reclaimed water from the southern region to the northern service area for residential customers and excess capacity to existing rapid infiltration basins (RIBs) for recharge.

Linkage to RWSP - The project is listed as a water supply development Project in the Heartland regional volume of the 2015 RWSP, Chapter 6, Section 3, page 124.

Schedule - The project began in FY2012. The task schedule was amended, and the project currently scheduled to be completed in December 2023.

N536 Auburndale Polytechnic Reclaimed Water Storage and Transmission

Description - The project is for design, permitting, and construction of a 2 million gallon storage tank, high service pump station, and approximately 10,500 feet of 16-inch diameter reclaimed water line from the City's Allred Wastewater Treatment Plant to the Florida Polytechnic University. The project will provide 1.5 million gallons of reclaimed water for irrigation and other uses at the new Florida Polytechnic University campus and Lake Myrtle Park.

Linkage to RWSP - The project is listed as a water supply development project in the Heartland regional volume of the 2015 RWSP, Chapter 6, Section 3, page 124.

Schedule - The project began in FY2014 and the end date is projected for FY2018.

N555 Town of Dunedin San Christopher Reclaimed Water Storage Tanks

Description - The project is for design, permitting, and construction of a 2.0 mgd pump station, telemetry, a 2.0 million gallon storage tank, along with piping and appurtenances to receive 0.1 mgd of effluent from the adjacent Coca-Cola plant that is currently discharged to the St. Joseph Sound. The project will result in 2.0 mgd of pumping capacity, 2.0 million gallons of diurnal storage, and 0.10 mgd of reclaimed water to existing and future customers in the Northern Tampa Bay Water Use Caution Area (NTBWUCA).

Linkage to RWSP - The project is listed as a water supply development project in the Tampa Bay regional volume of the 2015 RWSP, Chapter 6, Section 2, page 133.

Schedule - The project began in FY2014 and is ongoing. The end date is scheduled for early FY2018.

N556 Charlotte County Reclaimed Water Expansion Phase 3

Description - The project is for design, permitting, and construction of approximately 51,000 feet of 4- to 16-inch diameter reclaimed transmission mains, retrofit of a 95 million gallon storage pond along with aeration, filtration, flow meter, telemetry, post chlorination system, transfer stations, an up to 5 mgd pump station, and other necessary appurtenances. The main transmission portions are located in western Charlotte County along County Road 775 (Placida Road) and along Cape Haze Drive. The project supplies reclaimed water in the central and western areas of the County for residential developments, commercial property, golf course irrigation, and a County park in the SWUCA.

Linkage to RWSP - The project is listed as a water supply development project in the Southern regional volume of the 2015 RWSP, Chapter 6, Section 2, page 130.

Schedule - The project began in FY2014, is ongoing, and the end date is scheduled in March 2019.

N667 City of North Port Reclaimed Water Transmission Main Phase 3

Description - The project consists of design, permitting, and construction of reclaimed water transmission infrastructure that includes 7,400 feet of 16- to 18-inch pipeline. The project will provide access to 0.36 mgd of reuse water for irrigation to the North Port Dog Park and other commercial and condominium properties, while improving the reliability to existing and future customers. The project is integral in laying the foundation for the long-term expansion of the reuse system to the east along Price Boulevard to Toledo Blade Boulevard where service will be provided to major commercial activity centers.

Linkage to RWSP - The project is listed as a water supply development project in the Southern regional volume of the 2015 RWSP, Chapter 6, Section 2, page 130.

Schedule - The project began in FY2015, is ongoing, with end date scheduled in June 2018.

N696 Hernando County US19 Reclaimed Water Transmission, Phase 1

Description - The project consists of constructing a 16-inch reclaimed water main from the Glen Water Reclamation Facility to the intersection of US 19 and Trenton Avenue in Hernando County. It also includes a new ground storage tank at the facility. The project will provide up to 1.7 mgd of reclaimed water to the Timber Pines Subdivision and golf course. The new reclaimed water main will tie into the existing reclaimed water distribution system in Timber Pines.

Linkage to RWSP - The project is listed as a water supply development project in the Northern regional volume of the 2015 RWSP, Chapter 6, Section 2, page 103.

Schedule - The project began in FY2016, is ongoing, and is scheduled for completion by November 2019.

N697 Pasco County Tampa Bay Golf/Country Club Reclaimed Water Expansion

Description - The project is for the design, permitting, and construction of approximately 1,200 feet of eight-inch reclaimed water distribution piping and associated appurtenances from the County's existing reclaimed water transmission main along Old Pasco Road to the existing storage pond and irrigation pump station at the Tampa Bay Golf and Country Club. It will provide up to 0.10 mgd of reclaimed water to a golf course customer situated within the NTBWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing reclaimed water reuse to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2016, is ongoing, and will be completed in early FY2018.

N711 Braden River Lakewood Ranch Stewardship District Reclaimed Water Transmission

Description - This project is for construction of a reclaimed water transmission main extension to serve Lakewood Ranch via Braden River Utilities. This transmission main will move additional reclaimed water flows sourced from the City of Sarasota further east and north to meet residential and recreation irrigation demands. The project will also allow for the routing and distribution of reclaimed water from the City of Bradenton. The easterly transmission main will consist of approximately 17,000 feet of 16- to 20-inch pipeline. The northern transmission main will consist of approximately 13,200 feet of 12- to 20-inch pipeline. The project also includes an 11.4 million gallon storage reservoir at the northern terminus and a passive denitrification pilot system.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing reclaimed water reuse to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project was initially funded in FY2017, is ongoing, and completion is anticipated by January 2019.

N743 Starkey Ranch Reclaimed Water Transmission Project B

Description - This project is for design, permitting, and construction of approximately 17,500 feet of reclaimed water transmission mains to provide up to 0.41 mgd of reclaimed water to mixed-use irrigation customers (residential, commercial, and civic) in the Starkey Ranch development within the NTBWUCA.

Linkage to RWSP - This project is a scaled-down component of the "Reuse Expansion Pasco/New Port Richey System 2016-2035" project listed in the Tampa Bay regional volume of the 2015 RWSP in Chapter 5, Section 3.

Schedule - The project began in FY2016 and is ongoing. The end date is scheduled in June 2019.

N751 City of Tampa Augmentation Project

Description - The Tampa Augmentation Project Study will investigate reusing up to 20 mgd of highly treated reclaimed water from the City's advanced wastewater treatment plant to recharge the aquifer adjacent to the Tampa Bypass Canal through RIBs and wetlands restoration. The City is implementing a program to address regulatory requirements, evaluate the feasibility of RIBs and wetlands, determine surface water yield, and construct a one-acre RIB to conduct pilot trials. In addition to potable water supply benefits, there are associated environmental benefits including a reduction of nitrogen loading to Hillsborough Bay, additional freshwater flows to help meet MFLs, and wetlands restoration.

Linkage to RWSP - This project is listed as a water supply development project in the Tampa Bay regional volume of the 2015 RWSP, Chapter 5, Section 3, page 116 as the Tampa Bypass Canal Augmentation 2016-2035, City of Tampa.

Schedule - The project began in FY2016 and has end date scheduled for April 2018.

N755 Hillsborough County Integrated Water Resource Feasibility/Design Phase 3

Description - This is the feasibility investigation and preliminary design/modeling to evaluate the technical, regulatory, and financial feasibility of using up to 25+ mgd of excess reclaimed water to significantly increase direct and indirect aquifer recharge in Hillsborough County. Phase 2 focused on hydrological modeling of recharge capabilities for regionally significant areas of Hillsborough County including portions of the Dover/Plant City WUCA, the NTBWUCA, and the MIA of the SWUCA. Phase 3 will include more refined geophysical testing in the areas selected in Phase 2. Phase 3 will also include preliminary design(s) for reclaimed infrastructure from partnering systems, including interconnections that are determined necessary for meeting project objectives.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing reclaimed water reuse to offset traditional water supplies as described in Chapter 6, Section 3 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and has end date scheduled for December 2018.

N772 Polk County NERUSA Loughman/Ridgewood Reclaimed Water Transmission

Description - This project is for design, permitting, and construction of approximately 12,400 feet of 12- to 24-inch reclaimed water transmission mains and other necessary appurtenances to supply approximately 915 residential irrigation customers in the Ridgewood Lakes Development expansion and Loughman - Del Webb Development expansion areas of Polk County Utilities' Northeast Regional Utility Service Area (NERUSA).

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing reclaimed water reuse to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2017 and the end date is scheduled for December 2019.

N776 Hillsborough County 19th Ave Reclaimed Water Transmission Main

Description - The project is for the construction of approximately 19,000 feet of 20- to 30-inch reclaimed water transmission mains and other necessary appurtenances to supply 2,000 residential irrigation customers in the Harbour Isle and Waterset South developments and to provide future additional residential irrigation and recharge projects in the Apollo Beach area. The project will supply 1.20 mgd of reclaimed water for residential irrigation and enable the future supply of up to 8.60 mgd to the SHARP Project (N287) and additional residential irrigation customers in the MIA of the SWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is related to the SHARP project mentioned in Chapter 7, Section 1 of the Tampa Bay regional volume of the

2015 RWSP (page 131), and is consistent with the District's commitment to maximize reclaimed water reuse to offset traditional water supplies.

Schedule - The project began in FY2017 and the end date is scheduled for December 2019.

N778 Pasco County Bexley South Reclaimed Water Transmission Phase 2

Description - This project is for construction of approximately 3,000 feet of 16-inch reclaimed water transmission mains and other necessary appurtenances to provide irrigation to residential, commercial, recreational, and aesthetic irrigation customers in the Bexley South Master Planned Unit Development. The system will supply 0.20 mgd of reclaimed water to mixed-use irrigation customers in the NTBWUCA.

Linkage to RWSP - This project is a scaled-down component of the "Reuse Expansion Pasco/New Port Richey System 2016-2035" project listed in the Tampa Bay regional volume of the 2015 RWSP in Chapter 5, Section 3.

Schedule - The project began in FY2017 and the end date is scheduled for December 2018.

N791 Pasco County Starkey Ranch Reclaimed Water Transmission Project C

Description - Phase C of the project is for the design and construction of reclaimed water transmission mains in the next phase of the Starkey Ranch development. The project will include approximately 5,700 feet of 12- to 16-inch transmission mains and other necessary appurtenances to provide up to 0.29 mgd of reclaimed water to mixed-use irrigation customers (residential, commercial, and institutional).

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing reclaimed water reuse to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled in 2021.

N792 Pasco County Reclaimed Water Transmission Main Ridge Golf Course

Description - The project will extend approximately 20,000 feet of 12-inch reclaimed water transmission main along DeCubellis Road from Starkey Boulevard to Ridge Road, and along Moon Lake Road from Ridge Road to the Water's Edge community's existing irrigation pond. The project will provide 0.68 mgd of reclaimed water to residential customers and a golf course customer.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing reclaimed water reuse to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for June 2020.

N796 City of Winter Haven Reuse and Aquifer Recharge Feasibility

Description - The project is for a site feasibility investigation of an aquifer recharge project using reclaimed water provided by the City of Winter Haven's Wastewater Treatment Plant No. 3. If constructed, the aquifer recharge project will be a cooperative development partnership with an existing property owner/developer on 300 acres. This project will evaluate the feasibility of delivering 0.5 mgd for indirect aquifer recharge to improve groundwater levels in the SWUCA and potentially lake levels in Winter Haven.

Linkage to RWSP - This project is phase 2 of the Winter Haven Reclaimed Water Interconnect, Storage, and Pumping Project (N339) and listed in the Heartland regional volume of the 2015 RWSP, Chapter 6, Section 3, page 124.

Schedule - The project was budgeted in FY2017 and commenced in September 2017. The study is scheduled for completion in September 2019.

N804 Hillsborough County Sun City Golf Courses Reclaimed Water Expansion

Description - This project consists of the design, permitting, and construction of approximately 15,500 feet of 6- to 16-inch transmission lines interconnected to existing Hillsborough County reclaimed transmission water lines and other necessary appurtenances to provide an alternative supply of 2.0 mgd to irrigate up to seven golf courses at Sun City Center, all located within the MIA of the SWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing reclaimed water reuse to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for May 2019.

N805 City of Tarpon Springs Westwinds/Grassy Pointe Reclaimed Water System

Description - This project is for design, permitting, and construction of approximately 13,500 feet of 4- to 6-inch reclaimed water transmission/distribution mains and other necessary appurtenances to supply approximately 310 residential irrigation customers in Tarpon Springs. The project will supply 0.07 mgd of reclaimed water in the NTBWUCA.

Linkage to RWSP - This project is a phase of the Reuse Expansion Tarpon Springs System 2016-2035, City of Tarpon Springs and listed as a water supply development project in the Tampa Bay regional volume of the 2015 RWSP, Chapter 5, Section 3, page 117.

Schedule - The project began in FY2017 and the end date is scheduled for December 2019.

N817 Hillsborough County Countywide Reclaimed Water Major User Connect

Description - This project is for the design, permitting, and construction of 2,600 feet of reclaimed water transmission main and necessary appurtenances to provide an alternative supply for the irrigation of two golf courses located at the Tournament Players Club and the Summertree Crossings Golf Club in Hillsborough County, located respectively within the NTBWUCA and within the MIA of the SWUCA. When connected, the project will supply 0.15 mgd of reclaimed water to the two golf courses.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing reclaimed water reuse to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for June 2019.

N837 Pasco County Cypress Preserve Reclaimed Water Transmission

Description - This project is for the design, permitting, and construction of approximately 3,000 feet of 10- to 14-inch reclaimed water transmission mains and other necessary appurtenances to supply approximately 557 single family homes, 284 multi-family homes, and approximately 15 acres of common areas in the Cypress Preserve community. When connected, the project will supply an estimated 0.19 mgd of reclaimed water in the NTBWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing reclaimed water reuse to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project will begin in early FY2018 and is anticipated to end in 2021.

N862 Polk County Utilities NERUSA CR 547 Reclaimed Water Transmission, Phase 1

Description - This project is for the design, permitting, and construction of approximately 6,900 feet of 10- to 16-inch reclaimed water transmission mains and necessary appurtenances to supply approximately 1,060 residential irrigation customers in the Williams Preserve, Greenfield Village, and Shell Property Areas of NERUSA. When connected, the project will supply an estimated 0.377 mgd of reclaimed water to residential customers in the "Ridge Area" of the CFWI.

Linkage to RWSP - This project evolved from project options described in the 2015 RWSP, Heartland regional volume, Chapter 5, Section 3, Page 106.

Schedule - The project will begin in FY2018 and the end date is in 2021.

N863 Hillsborough County Summerfield Sports Complex Reclaimed Water Transmission

Description - This project is for the design, permitting, and construction of an interconnected transmission line, a reclaimed water pump station, and other necessary appurtenances to supply contracted reclaimed water flows to athletic fields located at the Summerfield Sports Complex in Hillsborough County. When connected, the project will supply 0.065 mgd of reclaimed water within the MIA of the SWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar projects described in Chapter 5, Section 3 of the Tampa Bay regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and completion is anticipated within the Summer 2018.

N868 Polk County Utilities NERUSA Ernie Caldwell Blvd Reclaimed Water Transmission

Description - This project is for the design, permitting, and construction of approximately 10,300 feet of 16- to 24-inch reclaimed water transmission mains and necessary appurtenances to supply approximately 1,100 residential irrigation customers in the Ridgewood Lake DRI Property Areas of NERUSA. When connected, the project will supply approximately 0.414 mgd of reclaimed water to residential customers in the "Ridge Area" of the CFWI.

Linkage to RWSP - This project evolved from project options described in the 2015 RWSP, Heartland regional volume, Chapter 5, Section 3, Page 106.

Schedule - The project will begin in FY2018 and the end date is proposed for 2023.

N888 Haines City Reclaimed Water MFL Recharge & Advanced Treatment Feasibility Study

Description - This project is for the evaluation of reclaimed water recharge sites, components, and advanced treatment necessary to assist in meeting Minimum Flows and Levels (MFLs) on Lake Eva in the "Ridge Lakes" area of the CFWI.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components described in Chapter 5, Section 3 of the Heartland regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is anticipated to be in Fall 2018.

N898 Haines City Reclaimed Water Tank and Pump Stations Project

Description - This project is for the conceptual sizing, preliminary design, 30 percent design, and third-party review of an expansion to the City's reclaimed water storage and pumping infrastructure. The infrastructure may include a reclaimed water storage tank, a low-pressure reuse transfer pump station, a high-pressure reuse pump station, telemetry controls, and other necessary appurtenances to supply existing reuse customers and to enable future expansion of the City's reuse system. District funding is for the 30 percent design and third-party review, as this project has a conceptual estimate of

nearly $5 million. The third-party review will provide the necessary information to support funding in future years to complete design, permitting, and construction.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components described in Chapter 5, Section 3 of the Heartland regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is anticipated to be in Fall 2018.

N899 Polk County Reclaimed Water Recharge Study in Dover/Plant City WUCA & Northwest Polk Areas

Description - This project request is for the second phase of an ongoing feasibility study by Polk County to develop a reclaimed water project concept to utilize up to 1.5 mgd of reclaimed water for aquifer recharge or other innovative methods to supplement groundwater supplies in Polk County's Northwest Regional Utility Service Area. Phase 1 of this study was funded by the County and is ongoing. Phase 1 includes a review of the potential reclaimed water supply and recharge project options and a desktop analysis of those water supply options including costs, regulatory feasibility, and operation. The County will select which reclaimed water supply option to further evaluate as part of a pilot study. Phase 2 of this study proposes to include District funding and begins in FY2018. Phase 2 will include a field scale investigation of the selected water supply project concept. Pilot testing and/or aquifer recharge testing will be included in this phase. Additional activities may include installing recharge and monitoring wells, collecting lithologic cores, aquifer performance testing and groundwater modeling. Phase 2 will also include the conceptual design and permitting of the selected reclaimed water supply/recharge project.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components described in Chapter 5, Section 3 of the Heartland regional volume of the 2015 RWSP.

Schedule - Phase 2 will begin in FY2018 and the end date is projected at the end of 2019.

N918 Polk County NERUSA FDC Grove Road Reclaimed Water Transmission Project

Description - This project is for the design, permitting, and construction of approximately 13,600 feet of 6- to 8-inch reclaimed water transmission mains and other necessary appurtenances to supply approximately 400 residential irrigation customers in the Natures Reserve, Polak/Cambria, County Walk Estates, Taylor Made Property/Sunridge, Holly Grove Villas, and other areas of NERUSA. When connected, the project will supply 0.142 mgd of reclaimed water to residential customers in the "Ridge Area" of the CFWI.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components described in Chapter 5, Section 3 of the Heartland regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is proposed for 2020.

N920 West Villages to Sarasota County South Reclaimed Water Transmission Project

Description - This project is for the design, permitting, and construction of approximately 5,000 feet of 12-inch reclaimed water transmission mains and necessary appurtenances to supply approximately 620 residential irrigation customers in the West Villages Community. When connected, the project will supply 0.25 mgd of reclaimed water to residential customers in SWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components described in Chapter 5, Section 3 of the Southern regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is proposed for 2019.

P130 City of Crystal River/Duke Energy Reclaimed Water Interconnection

Description - This project is for the design, permitting, and construction to connect the Meadowcrest wastewater treatment facility's reclaimed water to the City of Crystal River's existing reclaimed water line that delivers water to the Duke Energy Complex. This project is receiving $3,000,000 in Springs Initiative funding in FY2018.

Linkage to RWSP - The project is not specifically mentioned in the 2015 RWSP but increases the utilization of the Duke Energy interconnection discussed in Chapter 1 of the Northern regional volume, Section 1.2, page 5.

Schedule - The project began in FY2017 and the end date is scheduled for December 2022.

WC02 Citrus County Sugarmill Woods Advanced Wastewater Treatment

Description - The project includes designing, permitting, and construction of advanced treatment facilities at the Sugarmill Woods wastewater treatment facility to provide 2.0 mgd of additional nutrient removal using conventional and denitrification filters. The project will reduce nutrient loading within the Chassahowitzka Springs springshed.

Linkage to RWSP - This project is listed as a water supply development project in the Northern regional volume of the 2015 RWSP, Chapter 6, Section 2, page 115.

Schedule - The project began in FY2016 is near completion in early FY2018.

Brackish Groundwater Projects

N600 Punta Gorda Reverse Osmosis Project - Brackish Wellfield Investigation

Description - The Punta Gorda Reverse Osmosis project consists of two phases. Phase 1 is an exploratory well testing program that includes the design and construction of four wells for exploration to 2,000 feet below land surface, aquifer performance testing, data collection, groundwater modeling analysis, and report preparation. If the project is determined feasible, phase 2 will be the design, permitting, and construction of a new reverse osmosis water treatment facility co-located at the Shell Creek Water Treatment Plant Facility. Project Code N600 is for Phase 1, the brackish wellfield investigation.

Linkage to RWSP - This project is discussed in the Southern regional volume of the 2015 RWSP, Chapter 5, Section 5, page 120, and in Chapter 6, Section 4, page 135.

Schedule - This project began in FY2015 and the brackish wellfield investigation was completed in the Fall of 2017. The project code may remain active through the RO facility construction (N780).

N780 Punta Gorda Reverse Osmosis Project - Facility Construction

Description - The Punta Gorda Reverse Osmosis project consists of two phases. Phase 1 is an exploratory well testing program that includes the design and construction of four wells for exploration to 2,000 feet below land surface, aquifer performance testing, data collection, groundwater modeling analysis, and report preparation. If the project is determined feasible, phase 2 will be the design, permitting, and construction of a new reverse osmosis water treatment facility co-located at the Shell Creek Water Treatment Plant Facility. Project code N780 is for Phase 2, the reverse osmosis facility's final design, permitting, and construction. The facility will consist of a 4 mgd brackish groundwater treatment system, blending tank, and concentrate disposal facilities.

Linkage to RWSP - This project is discussed in the Southern regional volume of the 2015 RWSP, Chapter 5, Section 5, page 120, and in Chapter 6, Section 4, page 135.

Schedule - The reverse osmosis facility design work is undergoing a third-party review. If accepted, the facility construction may be completed by 2021.

N882 PRWC West Polk County Lower Aquifer Deep Wells

Description - This project with the PRWC is for a wellfield study of the Lower Floridan aquifer to verify geology and water quality in northwestern Polk County. The project also includes the conceptual design, pilot testing, and preliminary design of a 15 mgd water treatment facility, conceptual and preliminary design of a regional transmission system, a customer rate analysis, and third-party reviews of designs and costs. The project will assist the PRWC in determining participation in future design and construction, as well as develop initial phasing and funding plans. The project Cooperative Funding Initiative (CFI) agreement was executed in August 2017 and utilizes $4,650,000 in District funds from the Polk Partnership Project (H094).

Linkage to RWSP - The Northwest Wellfield is specifically described as a project option in Heartland regional volume of the 2015 RWSP, Chapter 5, Section 5, page 115. The regional transmission component of this project is related to the regional water grid system described in the Chapter 5, Section 1, pages 93, 94.

Schedule - The project CFI agreement was executed in August 2017 and is effective through December 2021.

N905 PRWC Southeast Wellfield Project

Description - This project with the PRWC is for a second wellfield study of the Lower Floridan aquifer to verify geology and water quality in the area of the proposed Southeast Wellfield. The project also includes the conceptual design, pilot testing and preliminary design of a water treatment facility, conceptual and preliminary design of a regional transmission system, a customer rate analysis, and third-party reviews of designs and costs. It's anticipated the Southeast Wellfield will have a 10 mgd initial capacity and will be expanded to 30 mgd in later phases. The project will assist the PRWC in determining participation in future design and construction, as well as develop initial phasing and funding plans. The project CFI agreement was executed in August 2017 and utilizes $5,900,000 in District funds from the Polk Partnership Project (H094).

Linkage to RWSP - The Southeast Wellfield is specifically described as a project option in the Heartland regional volume of the 2015 RWSP, Chapter 5, Section 5, page 115. The regional transmission component of this project is related to the regional water grid system described in the Chapter 5, Section 1, pages 93, 94.

Schedule - The project CFI agreement was executed in August 2017 and is effective through December 2022.

Aquifer Recharge and Aquifer Storage and Recovery Projects

K120 City of North Port Dry Season Potable Water ASR

Description - The City of North Port ASR Program was initiated in 1998 as an investigational study looking at the feasibility of storing partially treated surface water with a goal to design, permit, construct, and start-up a 1 mgd permanent ASR facility. The City's goal is to provide up to 100 million gallons of seasonal storage to supply potable water and possibly augment environmental flows in the Myakkahatchee Creek. The original project included five phases. The final phase, cycle test 6, will confirm the results of the previous cycle testing, test a larger volume, and evaluate any adjustments based on results.

Linkage to RWSP - This project is discussed in the Southern regional volume of the 2015 RWSP, Chapter 6, Section 5, page 136.

Schedule - The cycle test six is being completed ahead of schedule in early FY2018.

K269 Sarasota County North Reclaimed Water ASR

Description - The project will design, permit, construct, and test a 1 mgd reclaimed water Upper Floridan ASR well in the MIA of the SWUCA. The project will beneficially use reclaimed water and potentially contribute improvements to aquifer levels in the MIA to help meet the SWIMAL.

Linkage to RWSP - This project is discussed in the Southern regional volume of the 2015 RWSP, Chapter 6, Section 2, page 130.

Schedule - The project was initiated in 2000 and has experienced permitting delays. The schedule was amended, and the completion date is in March 2019.

L608 City of Palmetto Reclaimed Water ASR

Description - The project is for design, construction, testing, and operational permitting of a 1.2 mgd reclaimed water ASR well to help reduce demands on potable water supplies and eliminate the need for surface water discharge of excess reclaimed water to Terra Ceia Bay. The project is estimated to store 144 million gallons per year of reclaimed water during wet weather periods to help offset future groundwater use. Offsets will occur when components of related reclaimed water supply projects are constructed. Reclaimed water that's normally discharged from the City's wastewater treatment plant to Terra Ceia Bay will be stored in the ASR well. The City has been in communication with Manatee County and the City of Bradenton about the future regional system development, and this project could ultimately be an integral part of a more regional system.

Linkage to RWSP - This project is discussed in the Southern regional volume of the 2015 RWSP, Chapter 6, Section 2, page 130, and Chapter 6, Section 5, page 136.

Schedule - The project began 2007 and is being completed in early FY2018. The City is applying for an operational permit.

N435 Bradenton Surface Water ASR

Description - This project will include design, third-party review, permitting and construction of an ASR well (ASR-2), pilot testing of a pretreatment arsenic mobilization control system, and associated facilities to help meet current and future potable water supply demands. The ASR system will store approximately 150 million gallons of surface water during high flows in the MIA of the SWUCA that can be used during the dry season.

Linkage to RWSP - This project is listed as an ongoing project in the Southern volume of the 2015 RWSP, Chapter 6, Section 5, pages 133 and 134.

Schedule - This project began in FY2014 and will continue until 2021.

N665 City of Clearwater Groundwater Replenishment Project Phase 3

Description - This project is for design, permitting, and construction for the full-scale water purification plant, the injection water treatment system, and the injection and monitor well systems at the Clearwater Northeast Water Reclamation Facility to recharge 2.4 mgd annual average of purified reclaimed water. A feasibility study and site/pilot testing have been cooperatively funded in prior years (N179). The project is expected to allow for the City to increase their reclaimed water utilization, reduce surface discharges, improve groundwater levels in the NTBWUCA, and increase the City's future water supply potential from their existing wellfields.

Linkage to RWSP - This project is discussed in the Tampa Bay regional volume of the 2015 RWSP, Chapter 6, Section 2, page 133.

Schedule - The project commenced in FY2015 and has activities scheduled through March 2022.

N833 City of North Port Permanent ASR Facilities

Description - The project is for the design, permitting, construction, and start-up of permanent ASR well facilities at the City's Myakkahatchee Creek Water Treatment Plant. This effort follows the K120 feasibility study. The City's goal is to provide up to 100 million gallons per year of seasonal storage to supply their potable water needs and possibly augment environmental flows in Myakkahatchee Creek.

Linkage to RWSP - This project is discussed in the Tampa Bay regional volume of the 2015 RWSP, Chapter 6, Section 2, page 133.

Schedule - The city has commenced design, and construction is anticipated to run through Fall 2018.

Water Conservation Projects

N655 City of St. Petersburg Toilet Replacement Program Phase 15

Description - This project provides financial incentives to customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less. This project will provide rebates for the replacement of approximately 600 high-flow toilets. The project conserves approximately 14,256 gpd.

Linkage to RWSP - This project is discussed in the Tampa Bay regional volume of the 2015 RWSP, Chapter 6, Section 1, page 126.

Schedule - The project began in FY2017 and will be completed in early FY2018.

N716 Polk County Customer Portal Pilot Project

Description - This is a six-month pilot project for an online software program that will enable more effective distribution of conservation information and activities. The software will allow customers to readily access their water use information from a computer or electronic device and compare it to surrounding accounts. The software will be made available for approximately 5,000 residential accounts in Polk County's Northeast region, where per capita water consumption is highest.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project commenced in FY2017 and has end date scheduled for March 2018.

N728 City of St. Petersburg Sensible Sprinkling Program Phase 7

Description - The project provides approximately 300 irrigation system evaluations to single family, multifamily, and commercial customers. This will include program administration and evaluations with recommendations for optimizing the use of water outdoors through Florida-Friendly Landscaping™ practices and other efficient irrigation BMPs. Approximately 300 rain sensor devices will be provided and installed for project participants who do not have a functioning device. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program. The project conserves approximately 42,000 gpd.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2016 and has end date scheduled for June 2018.

N757 Bay Laural Irrigation Controller/ET Sensor Upgrade

Description - This project will make available approximately 300 ET weather-based irrigation controllers and ET sensors to utility customers that have existing in-ground irrigation systems. An irrigation contractor will be installing the new ET controller and ET sensor at residential homes, and providing an orientation with the homeowner to assist in familiarizing the resident with the new equipment. The project will conserve an estimated 24,234 gpd.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for November 2019.

N779 Marion County Toilet Rebate Program, Phase 4

Description - This project provides financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets which use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 400 high-flow toilets. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program. The project will conserve an estimated 10,190 gpd.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for August 2019.

N789 Pasco County ULV Toilet Rebate Program, Phase 10

Description - This project provides financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets which use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 500 high-flow toilets. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program. The project conserves approximately 13,982 gpd.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for June 2018.

N806 Manatee County Toilet Rebate Project Phase 10

Description - This project provides financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets which use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 1,500 high-flow toilets. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program. The project conserves approximately 39,570 gpd.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for January 2019.

N808 City of Venice Toilet Rebate and Retrofit Project

Description - This project provides financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets which use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 290 high-flow toilets. In addition, 400 water conservation kits will be distributed that include educational materials, low-flow showerheads, and leak detection dye tablets. Also included are program promotion and surveys necessary to ensure the success of the program. The project conserves approximately 13,151 gpd.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for June 2019.

N815 City of Arcadia - South Distribution Looping Project

Description - The City of Arcadia Water Distribution System contains numerous areas that are served by a single main and required consistent flushing to maintain disinfectant residuals within these areas to meet the water quality standards mandated by the DEP and the Environmental Protection Agency. The project includes design, permitting, and construction of approximately 4,500 feet of new potable water lines and associated components necessary to eliminate system dead ends and loop the system to maximize circulation, reduce water age, and minimize flushing. There are three dead end lines that serve the southern portion of the distribution system and serve a Catholic Charities Development (Casa San Juan Bosco), a low-income neighborhood (Forest Pines), the Arcadia Trailer Park, and the Arcadia Airport. This is considered a utility-based supply side conservation project, and will reduce routine flushing in three areas by allowing potable water circulation in the southern area of the City.

Linkage to RWSP - The reduction of water distribution system losses is part of the District's water conservation strategy defined in the 2015 RWSP, Chapter 4, Section 2, of the Southern planning volume. The project was not specifically mentioned as a project option in the RWSP, but is consistent with similar project components.

Schedule - The project began in FY2017 and will continue through October 2019.

N819 City of St. Petersburg Toilet Rebate Program, Phase 16

Description - This project provides financial incentives to customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets which use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 500 residential and commercial high-flow toilets. Also included are educational materials, program promotion/marketing, and surveys necessary to ensure the success of the program. The project conserves approximately 10,100 gpd.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for December 2018.

N820 Polk County Landscape & Irrigation Evaluation Program

Description - This project will make available approximately 300 irrigation system evaluations to single family, multifamily, and commercial customers. This will include program administration and evaluations with recommendations for optimizing the use of water outdoors through Florida-Friendly Landscaping™ practices and other efficient irrigation BMPs. Approximately 150 rain sensor devices will be provided and installed for project participants who do not have a functioning device. Also included are educational materials, program promotion, follow-up evaluations, and surveys necessary to ensure the success of the program. Approximately 300 conservation kits will be made available to project participants. The project will conserve an estimated 42,000 gpd.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for December 2019.

N822 WRWSA Enhanced Regional Irrigation Evaluation/Conservation Incentives

Description - This project will make available approximately 416 irrigation system evaluations within Marion, Citrus, and Hernando counties, and the Villages Development District. Participating utilities will choose between either Core evaluations or Enhanced evaluations. Core evaluations provide recommendations for optimizing the use of water outdoors through Florida-Friendly Landscaping™ practices and other efficient irrigation BMPs. Standard rain sensor devices will be provided and installed for project participants who do not have a functioning device. Enhanced evaluations, in addition to the core services, will provide installation of an advanced ET controller and ET sensor device (in place of a standard rain sensor) and will perform the recommend irrigation system modifications. The entire project includes program administration, educational materials, program promotion, follow-up evaluations, and surveys necessary to ensure the success of the program. The project will conserve an estimated 86,944 gpd.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for September 2020.

N840 City of Venice Advanced Metering Analytics Project

Description – This project will implement a software program that will promote and encourage water conservation by utility customers. This project will allow software platform setup, including a utility side dashboard, and will initially be available for 5,000 customers. The program is expected to expand as advanced metering infrastructure (AMI) is installed throughout the City over the next several years. The software will perform multiple conservation related functions including: providing a customer portal log-in and graphing customer water use over time, promoting utility conservation incentives and rebates based on property appraiser data and water use data, detecting and alerting customers to leaks on a daily basis, and aiding in education of customers about watering restrictions. The project will conserve an estimated 3,800 gpd in SWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is to be determined.

N845 Pasco County Florida Water Star Pilot Project

Description – A pilot program with financial incentives to home builders for building homes to Florida Water Star (FWS) standards and submitting proof of FWS certification for these homes. FWS homes meet specific water-efficiency criteria inside the homes in appliances and fixtures and outside the homes in landscape and irrigation design and installation. This project will provide a $700 rebate per home for home builders to assist with the additional costs associated with building and certifying approximately 100 FWS-certified homes. The project will conserve an estimated 13,200 gpd in the NTBWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP, but is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP. The Florida Water Star program is discussed as a conservation incentive program in Chapter 4, Section 2

Schedule - The project will begin in FY2018 and the end date is tentatively scheduled in September 2020.

N846 Polk County Landscape and Irrigation Evaluation

Description - This project will make available approximately 300 irrigation system evaluations to

single family, multi-family, and commercial customers. This will include program administration and evaluations with recommendations for optimizing the use of water outdoors through Florida-Friendly Landscaping practices and other efficient irrigation best management practices. Approximately 150 rain sensor devices will be provided and installed for project participants who do not have a functioning device. Also included are educational materials, program promotion, follow-up evaluations, and surveys necessary to ensure the success of the program. Approximately 300 conservation kits will also be made available to project participants. The project will conserve an estimated 42,000 gpd in the SWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is tentatively scheduled for July 2020.

N849 City of Venice Toilet Rebate and Retrofit Project, Phase 6

Description - This project provides financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets which use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 250 high-flow toilets. These include educational materials, low-flow shower heads, and leak detection dye tablets. Also included are program promotion and surveys necessary to ensure the success of the program. The project conserves approximately 4,868 gpd.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project was scheduled in the FY2018 budget but will likely be withdrawn by the city.

N852 Pasco County Toilet Rebate Program – Phase 11

Description - This project provides financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets which use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 500 high-flow toilets. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program. The project conserves approximately 13,640 gpd.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is tentatively scheduled for February 2019.

N860 Citrus County WaterSense® Labeled Irrigation Controllers

Description - This project provides financial incentives to residential customers for the installation of approximately 75 WaterSense® labeled irrigation controllers at residential homes in the Citrus County service area. Also included are education materials, program promotion, surveys, and an orientation with the homeowner to assist in familiarizing the resident with the new equipment. The project will conserve an estimated 16,658 gpd in the Northern Planning Region of the District.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP, but is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP. The WaterSense® fixtures are discussed in Chapter 5, Section 2.

Schedule - The project will begin in FY2018 and the end date is tentatively scheduled for April 2020.

N875 St. Petersburg Florida Water Star Rebate Pilot Project

Description - A pilot program with financial incentives to home builders for building homes to Florida Water Star (FWS) standards and submitting proof of FWS certification for these homes. FWS homes meet specific water-efficiency criteria inside the homes in appliances and fixtures and outside the homes in landscape and irrigation design and installation. This project will provide a $700 rebate per home for home builders to assist with the additional costs associated with building and certifying approximately 71 FWS-certified homes. The project will conserve an estimated 9,400 gpd in the NTBWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP, but is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP. The Florida Water Star program is discussed as a conservation incentive program in Chapter 4, Section 2.

Schedule - The project will begin in FY2018 and the end date is tentatively scheduled for February 2020.

N876 New Port Richey Toilet Rebate Program, Phase 4

Description - This project provides financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets which use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 80 high-flow toilets. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program. The project conserves approximately 1,874 gpd in the NTBWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is tentatively scheduled for August 2019.

N877 Manatee County Toilet Rebate Project, Phase 11

Description - This project provides financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets which use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 1,500 high-flow toilets. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program. The project conserves approximately 39,571 gpd in the SWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is tentatively scheduled for July 2019.

N890 St Petersburg Residential Clothes Washer Rebate Pilot Project

Description – A pilot program with financial incentives to residential customers for the replacement of high flow clothes washer with an EPA Energy Star certified high efficiency model. The EPA Energy Star program now includes a maximum standard for water use for clothes washers. This project will include rebates and program administration for the replacement of approximately 100 high flow clothes washers up to $125 per rebate. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program. The project will conserve an estimated 1,500 gpd in the NTBWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is to be determined.

N909 St. Petersburg Sensible Sprinkling Program, Phase 8

Description - This project will make available approximately 300 irrigation system evaluations to single family, multi-family, and commercial customers. This will include program administration and evaluations with recommendations for optimizing the use of water outdoors through Florida-Friendly Landscaping™ practices and other efficient irrigation best management practices. Approximately 300 rain sensor devices will be provided and installed for project participants who do not have a functioning device. Also included are the educational materials, program promotion, follow-up evaluations, and surveys necessary to ensure the success of the program. The project will conserve an estimated 56,000 gpd in the NTBWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is tentatively scheduled for April 2020.

N921 Bay Laurel Center 2018 Irrigation Controller/ET Sensor Upgrade Project

Description - This project, with Bay Laurel Center Community Development District, will make available approximately 300 evapotranspiration (ET) weather-based irrigation controllers and ET sensors to utility customers that have existing in-ground irrigation systems. An irrigation contractor will be installing the new ET controller and ET sensor at residential homes, and providing an orientation with the homeowner to assist in familiarizing the resident with the new equipment. The project will conserve an estimated 22,794 gpd in the Northern Planning Region of the District.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project will begin in FY2018 and the end date is tentatively scheduled for June 2020.

N922 Bay Laurel Florida Water Star Rebate Pilot Project

Description - A pilot program with financial incentives to home builders for building homes to Florida Water Star (FWS) standards and submitting proof of FWS certification for these homes. FWS homes meet specific water-efficiency criteria inside the homes in appliances and fixtures and outside the homes in landscape and irrigation design and installation. This project will provide a $700 rebate per home for home builders to assist with the additional costs associated with building and certifying approximately 75 FWS-certified homes. The project will conserve an estimated 9,900 gpd in the NTBWUCA.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP, but is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP. The Florida Water Star program is discussed as a conservation incentive program in Chapter 4, Section 2.

Schedule - The project will begin in FY2018 and the end date is tentatively scheduled for February 2020.

P920 Polk Regional Water Cooperative Outdoor BMPs

Description - This cooperative project with the PRWC and the DEP will provide financial incentives or hardware installation services to customers for the replacement of various outdoor irrigation and landscape components. Approximately 50 Florida-Friendly Landscape™ rebates of up to $2,000 each will be distributed. The BMPs involve converting existing landscaped area using high volume irrigation to a landscaped area that has no irrigation or will use micro-irrigation. The rebate amount will vary based on the actual square footage of irrigation converted. Approximately 220 smart irrigation ET controllers will be installed by a licensed irrigation contractor along with homeowner education on proper unit operation. Approximately 590 wireless rain sensors are to be purchased and distributed to homeowners. Also included are program promotion and educational materials. If all conservation items are implemented, the estimated savings will be 52,300 gpd. The DEP is providing $166,075 for the project.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for May 2021.

P921 Polk Regional Water Cooperative Indoor Conservation Incentives

Description - This cooperative project with the PRWC and the DEP will provide financial incentives to residential customers for the replacement of approximately 1,500 conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less. Another smaller component of the project will include the toilet plus installation for select utility customers, for approximately 300 units. The final project component will be the acquisition and distribution of approximately 1,300 conservation kits to homeowners (shower heads, faucet aerator, etc.). The program also includes promotion and educational materials. If all conservation items are implemented, estimated savings is 87,370 gpd in the CFWI and the SWUCA. The DEP is providing $121,275 for the project.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for May 2020.

P922 Polk Regional Water Cooperative Florida Water Star Builder Rebate Program

Description - This cooperative project with the PRWC and the DEP will provide up to 500 rebates to home builders within Polk County who build homes to Florida Water Star^{sm} standards and submit proof of Florida Water Star^{sm} certification. Approximately $1,400 in additional costs per home will be incurred by builders to meet Florida Water Star^{sm} criteria. The rebate amount of $700 covers approximately 50 percent of the cost, the home builder will provide any remaining funds. The DEP is providing $350,000 for the project. There is no monetary contribution by the District or Polk County; only program administration. If all 500 rebates are issued, approximately 66,165 gpd could be conserved.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP, but is in line with the District's commitment to maximizing water conservation to offset traditional water supplies as described in Chapter 6, Section 1 of each regional volume of the 2015 RWSP. The Florida Water Star program is discussed as a conservation incentive program in Chapter 4, Section 2

Schedule - The project began in FY2017 and the end date is scheduled for May 2020.

Water Supply Planning Projects

N781 Hernando County Reclaimed Water Master Plan

Description - The project is a master plan update of countywide reclaimed water routing, sizing, and costing of infrastructure necessary to expand current components into one regionalized reclaimed water system. The plan will evaluate future reclaimed service areas, revise growth projections, identify potential reuse customers, and plan for increased flows that may be associated with future septic-to-

sewer conversions. The plan will provide updated and accurate estimations of components, costs, and routing necessary to effectively maximize the utilization and benefits of reclaimed water supplies within Hernando County.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water reclamation to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and the end date is scheduled for December 2018.

N816 City of Oldsmar Reclaimed Water Master Plan

Description - This project is a reclaimed water master plan update for the City of Oldsmar to identify new customers, routing, and preliminary cost estimates for reclaimed water system expansion options. The project will evaluate the existing reuse system and outline a plan for expansion based on cost, anticipated use, and available supply. Pending final construction and permitting of the City's new 1 mgd ASR well, the City's reclaimed water availability will increase as a result of the additional storage. A strategic expansion will ensure system extensions are hydraulically feasible and the resource is fully and efficiently utilized.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to maximizing water reclamation to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project began in FY2017 and will be completed in early FY2018.

P928 PRWC Peace Creek Integrated Water Supply Plan

Description - The project is a feasibility study of the initial phase of the Peace Creek Integrated Water Supply Plan focusing on the determination of viable options to increase alternative water supplies for the PRWC. The project includes a feasibility study comprised of eight tasks including project administration, formation of a watershed partnership, selection and evaluation of aquifer recharge sites, preparation of a preliminary design (30 percent) report, completion of a third-party review, development of an integrated water supply plan, site permitting, and development of a preliminary water rate analysis. The feasibility study will determine if the evaluated sites can be utilized for increased water supply for the PRWC.

Linkage to RWSP - This project is not specifically mentioned as a project option in the RWSP but is consistent with similar project components and is in line with the District's commitment to offset traditional water supplies as described in Chapter 6, Section 2 of each regional volume of the 2015 RWSP.

Schedule - The project CFI agreement was executed in August 2017 and is effective through April 2022.

Funding Sources

The District provides significant financial assistance for water resource development and water supply development projects through the District's Cooperative Funding Initiative, which consists of the cooperative funding program and other District Initiatives. The financial assistance is provided primarily to governmental entities, but private entities may also participate in these programs. Portions of state funding are allocated to the District through the DEP and legislative appropriations for the Springs Initiative, the Florida Forever Program, the Water Protection and Sustainability Program, the District's West-Central Florida Water Restoration Action Plan, and the District's FARMS Program. These sources are described below.

District Funding

Cooperative Funding Initiative - The District's primary funding mechanism is the Cooperative Funding Initiative (CFI), which includes funding for major regional water supply and water resource development projects and localized projects throughout the District's 16-county jurisdiction. The CFI is a matching grant program that enables the Governing Board, through its regional sub-committees, to jointly participate with local governments and other entities to incentivize proper development, use, and protection of the regional water resources of the District. Projects of mutual benefit are generally funded 50 percent by the District and 50 percent by the public or private cooperators. Communities or counties qualifying under the Rural Economic Development Initiative (Section 373.0656, F.S.) may be eligible for greater matching shares. Any state and federal funds received for the projects are applied directly against the project costs, with both parties benefitting equally. The CFI has been highly successful; since 1988, the District has provided over $1.5 billion in incentive-based funding assistance for a variety of water projects addressing its four areas of responsibility: water supply, natural systems, flood protection, and water quality. In FY2018, the District's adopted budget includes nearly $78 million for CFI projects and grants. Of the $78 million, approximately $6.5 million is included from the DEP for Springs Initiative projects, $2 million is included from local revenue for projects where the District is serving as the lead party, and $50 million of District grant funds. The District funds will be leveraged through cooperative partnerships with public and private partners, which will result in an additional $50 million in matching cooperator funds. This will result in total investment for sustainable alternative water supply development and other water resource management projects of approximately $128 million.

District Initiatives - District Initiatives are funded in cases where a project is of great importance or a regional priority. The District can increase its percentage match and, in some cases, provide total funding for the project. Examples of District Initiatives include: (1) the QWIP program to plug deteriorated, free-flowing wells that waste water and cause inter-aquifer contamination, (2) the water loss reduction program to conserve water by having District staff inspect meters and detect leaks in public water system pipelines, (3) data collection and analysis to support other District activities such as the MFL program, (4) the FARMS Program and other various agricultural research projects that help increase the water-use efficiency of agricultural operations, and (5) the water supply investigations and MFL Recovery projects which may not have local cooperators.

State Funding

Springs Initiative - The DEP Springs Initiative is a special legislative appropriation that has provided revenue for protection and restoration of major springs systems. The District has allocated Springs Initiative funding to implement projects to restore aquatic habitats and to reduce groundwater withdrawals and nutrient loading within first-magnitude springsheds to improve the water quality and quantity of spring discharges. Projects include the reestablishment of aquatic and shoreline vegetation near spring vents, installation of wastewater force mains to allow for the removal of septic tanks and increase reclaimed water production, and implementation other BMPs within springshed basins.

The first year of the appropriation was FY2013 and $1.1 million was allocated by the District to an industrial reuse project to transfer reclaimed water from the City of Crystal River to the Duke Energy power generation complex. In FY2014, the District allocated $1.35 million of Springs Initiative appropriations to two stormwater improvement projects and one wastewater/reclaimed water project. In FY2015, $6.46 million of Springs Initiative funding was budgeted for four wastewater/reclaimed water projects. In FY2016, $13.4 million of Springs Initiative funding is allocated to one water supply

development project (Hernando County US-19 Reclaimed Water Transmission, $6.0 million) and four surface water management projects that will reduce nutrients from septic infiltration in priority springsheds. In FY2017, $10.14 million was budgeted for six District projects including the City of Crystal River/Duke Energy Reclaimed Water Interconnection, four springs water quality improvement projects to remove septic tanks and provide municipal sewer in sensitive locations, and a regional stormwater treatment system to reduce nutrient input to Kings Bay. In FY2018, $6.5 million is budgeted for three projects to improve wastewater treatment in the Crystal River/Kings Bay watershed and one project to restore wetlands in and adjacent to Crews Lake in the Weekie Wachee springshed. One of the wastewater treatment projects is budgeted as Water Supply Development Assistance because it will generate reclaimed water supply.

Water Protection and Sustainability Program - The State's Water Protection and Sustainability Program was created in the 2005 legislative session to provide matching funds for the District's CFI and District Initiative programs for alternative water supply development assistance. The first year of funding was 2006 and the Legislature allocated $100 million for alternative water supply development assistance, with $25 million allocated to the District. The District was allocated $15 million in FY2007 and $13 million in FY2008. In FY2009, the District was allocated $750,000 for two specific projects. No additional funds have been allocated for the program from FY2010 through FY2018, but during the 2009 legislative session Chapter 403.890, F.S was created to establish the Water Protection and Sustainability Program Trust Fund as a component of the DEP. The formation of the Trust Fund indicates the state's continued support for the program.

The Water Protection and Sustainability Program funding can be applied toward a maximum 20 percent of the construction costs of eligible projects. Additionally, the District's budget must contribute funding equal to 100 percent of the state funding for alternative water supply development assistance, which the District exceeds annually. If continued, this funding program could serve as a significant source of matching funds to assist in the development of alternative water supplies.

West-Central Florida Water Restoration Action Plan - The West-Central Florida Water Restoration Action Plan (WRAP) is an implementation plan for components of the SWUCA Recovery Strategy adopted by the District. The document outlines the District's strategy for ensuring that adequate water supplies are available to meet growing demands, while at the same time protecting and restoring the water and related natural resources of the area. The WRAP prescribes measures to implement the recovery strategy and quantifies the funds necessary, making it easier for the District to seek funding for the initiative from state and federal sources. In 2009, the Legislature officially recognized the WRAP by creating Section 373.0363, F.S., as the District's regional environmental restoration and water-resource sustainability program for the SWUCA. In FY2009, the District received $15 million in funding for the WRAP. No new state funding has been provided from FY2010 through FY2018.

The Florida Forever Program - The Florida Forever Act, as passed in 1999, was a $10 billion, 10-year, statewide program. During the 2008 session, the Legislature passed a bill to extend the Florida Forever program for 10 more years at $300 million annually, and reducing the water management districts' annual allocation from $105 million to $90 million, with $22.5 million (25 percent) to be allocated to the District, subject to annual appropriation. For FY2010, the Legislature did not appropriate funding for the Florida Forever program other than for the state's debt service. The 2010 Legislature appropriated $15 million total, with $1.125 million allocated to the District in FY2011. From FY2012 through FY2018, the Legislature has not appropriated funding for the District. Eligible projects under the Florida Forever program include land acquisition, land and water body restoration, ASR facilities, surface water reservoirs, and other capital improvements. Since 1999, the District has allocated $95 million of Florida Forever funding for water resource development projects ($81.6 million for land acquisition and $13.4 million for water body restoration) primarily for the purchase of lands around Lake Hancock as the first step in restoring minimum flows to the upper Peace River.

The state's Florida Forever Trust Fund holds prior-year funds for this District and other water management district's accounts. For FY2018, $4.3 million is budgeted from the prior-year funds held in the Trust Fund. The funds held in district accounts have been generated through the sale of easements to the U.S. Department of Agriculture/Natural Resources Conservation Services for the Wetland Reserve Program and the sale of land or easements for rights-of-way. These funds are available for potential land acquisitions consistent with the guidance provided by the DEP. This District conducts a biennial Surplus Lands Assessment to identify and sell lands that do not meet the District's core mission. The proceeds from sold lands are used to purchase other lands that provide substantive environmental benefits.

State Funding for the FARMS Program - Operating under Chapter 40D-26, F.A.C., the FARMS

Program, through the District, utilizes additional state funding when available. Since the inception of the program, the District has received $6.4 million in state appropriations and $1.3 million from the FDACS. No funding was provided by state appropriations from FY2010 through FY2018.

U.S. Department of Agriculture-Natural Resources Conservation Service (NRCS) Environmental Quality Incentive Program (EQIP) - The EQIP provides technical, educational, and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands. The program provides assistance to farmers and ranchers to comply with federal, state of Florida, and tribal environmental laws that encourage environmental enhancement. The purpose of the program is achieved through the implementation of a conservation plan that includes structural, vegetative, and land management practices. The program is carried out primarily in priority areas such as watersheds, regions, or multistate areas where significant resource concerns exist. Agricultural water supply and nutrient management through detention/retention or tailwater recovery ponds can be pursued through this program.

In addition to the EQIP, the FARMS Program has partnered with NRCS through the Agriculture Water Enhancement Program (AWEP) and the Florida West Coast Resource Conservation and Development (RC&D) to bring additional NRCS cost-share funding to the SWUCA. The AWEP was created by the 2008 Farm Bill with similar goals as the EQIP program including conserving and/or improving the quality of ground and surface water. The RC&D is a nonprofit organization that promotes sustainable agriculture and local community food systems in Hillsborough, Manatee, Pinellas, and Sarasota counties.

The District's FARMS Program works cooperatively with the NRCS EQIP, AWEP, and RC&D programs on both financial and technical levels. In this effort, FARMS staff has coordinated dual cost-share projects whenever possible. By an agreement between the District, FDACS, and the NRCS, the maximum funding for using both FARMS and EQIP is 75 percent of total project cost. On a technical level, agency interaction includes the NRCS mobile irrigation lab investigating potential irrigation system efficiencies using FARMS cost-share projects, using NRCS engineering designs for regulatory agricultural exemptions, and coordinating the cost-shares on specific project-related infrastructure. For example, FARMS may assist with an alternative source of irrigation water and EQIP may assist with an irrigation delivery system upgrade. The mutually beneficial relationship extends cost-share dollars and provides more technical assistance to participants in both programs.

Summary/Conclusions

The WRD and water supply development projects and activities identified in the Work Program reflect the District's continuing commitment to ensure that adequate water resources are available to meet both existing and future reasonable-beneficial needs. The FY2018 budget for WRD Data Collection and Analysis activities and WRD Projects is approximately $29.9 million and $14.3 million respectively.

Funding for WRD Data Collection and Analysis is expected to remain constant over the next five years. The funding includes support of watershed management activities that will be critical for flood protection, water quality, and springshed health. The WRD Projects funding is projected to be constant or increase slightly over the next five years, as the District develops multiple aquifer recharge projects and continues the annual implementation of FARMS projects. The FARMS projects are anticipated to cost approximately $6 million each year to maintain agricultural irrigation efficiencies that reduce groundwater withdrawals, improve aquifer levels, and protect the quality of surface water resources.

Water supply development funding in FY2018 is approximately $35.3 million, which includes $3.0 million from the Springs Initiative allocated to the Citrus County Northwest Quadrant Sewer Extension. With the District's cooperative funding assistance, utilities will continue to implement reclaimed water and conservation projects to extend the availability of existing water supplies. Reclaimed water projects account for 26 percent of the budget for water supply development assistance in FY2018 at $2.9 million; however, the District anticipates that approximately $20 million will be needed annually for reclaimed water projects for long term planning. Conservation projects account for approximately $0.5 million of the FY2018 budget. These projects typically have lower costs but account for over one-third of the water supply development projects. Most are fully funded in one year; however, multiple conservation projects are proposed by cooperators each year. Future conservation project budgets are anticipated to be $1.0 to $1.5 million annually as highly cost-effective rebate programs are accomplished and more flushing-reduction, cooling tower, water use audits, and irrigation improvement projects are implemented. Funding for regional potable water interconnects in FY2018 is $10.47 million, which accounts for 30 percent of the FY2018 water supply development budget. The funding for brackish groundwater development in FY2018 is approximately $6.6 million for the Punta Gorda brackish groundwater project. The list of brackish groundwater projects also includes the PRWC's Southeast and West Lower Floridan aquifer projects, however the initial funding for these projects is coming from Polk County Partnership incentive funding budgeted in prior years.

Appendix A

District Projects for Implementing Basin Management Action Plans

In 2016, the Florida Legislature amended Section 373.036, F.S., to require the identification of all specific projects that implement a Basin Management Action Plan (BMAP) or a recovery or prevention strategy in the Water Resource Development Work Program. The District's Work Program has historically identified water resource development projects that support MFL recovery and prevention, but has not included specific descriptions of projects primarily intended to implement BMAPs. The DEP provided guidance recommending this appendix to include these projects. The projects below are categorized in the District's Programmatic Budget activity code 2.3.1 - Surface Water Management, unless otherwise noted.

Alafia River Basin

Balm Boyette Habitat Restoration (W398)

Background - The Balm Boyette Scrub Preserve is a 4,933-acre tract acquired by Hillsborough County Parks, Recreation, and Conservation Department through their Environmental Lands Acquisition Protection Program (ELAPP). The eastern third of the tract was mined for phosphate ore in the 1960s. Prior to mining, there were three wetland tributaries that formed the headwaters of a forested wetland referred to as Stallion Hammock and an interior meandering creek called Pringle Branch. Pringle Branch is a tributary of Fishhawk Creek and the Alafia River. This project will restore approximately 90 acres of wetland and upland habitats. This will help habitat function, improve water quality, and restore hydrology. The project cost is $2,277,174 and was budgeted in FY2014 from funds provided by the DEP that originated from a settlement with Mulberry Phosphates.

Linkage to Alafia River BMAP - This project will reduce total nitrogen and total phosphorous loads to the Alafia River.

Schedule - Final design and permitting are complete with construction anticipated to begin in the Spring of 2018.

Rainbow River Basin

Rainbow Springs Infrastructure Development Project (P113)

Background - This project includes the construction of a force-main and connection of four package plants in or near the City of Dunnellon. This project is taking steps to manage impacts to the springs by decreasing the number of package wastewater facilities in the immediate vicinity and therefore reducing their nutrient load contributions to the Rainbow River, a SWIM priority water body. The project cost is $2,279,183 and funding was provided by the DEP.

Linkage to Rainbow River BMAP - This project is listed in Table 14, Chapter 4.3.1 of the Final Basin Management Action Plan for the Implementation of Total Maximum Daily Loads adopted by the DEP in the Rainbow Springs Basin Management Area, page 61.

Schedule - The project is postponed as the wastewater facilities may be transferred to the FGUA and may proceed at an undetermined date.

Consolidated Annual Report

March 1, 2018

2017 Polk Regional Water Cooperative Status Report

Southwest Florida Water Management District

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Polk Regional Water Cooperative Status Report

The Polk Regional Water Cooperative (PRWC) was created in 2016 through Interlocal Agreement and consists of Polk County and 15 municipal member governments, The PRWC was formed to provide for regional cooperation on the development and delivery of water resources to meet future water demands within Polk County. The majority of the PRWC jurisdiction is located within the District's Southern Water Use Caution Area, while the entirety of its jurisdiction is located within the Central Florida Water Initiative (CFWI) planning area.

In 2017, the Florida Legislature passed the Heartland Headwaters Protection and Sustainability Act (HB 573) to recognize the critical importance of Polk County's aquifers to the economic and ecological health of the region as headwaters for six of Florida's major river systems. The Act requires the development of a comprehensive annual report to be completed by the PRWC and submitted to the Governor, President of the Senate, Speaker of the House, Department of Environmental Protection and water management districts by December 1 of each year. In addition, the Act further requires the PRWC to coordinate with the appropriate water management district to provide a status report on projects receiving priority state funding and to include such status report in the consolidated water management district annual report (Section 373.463(3), Florida Statutes). This section of the District's Consolidated Annual Report serves as the PRWC status report for 2017.

Pursuant to requirements of the Act to develop a list of projects for state funding consideration, the PRWC initially identified 27 member-submitted projects for consideration, including those within the categories of drinking water, wastewater, stormwater and flood control, environmental restoration, and conservation (Table 1). To evaluate and rank these projects for funding consideration, the PRWC undertook a process with its local member governments to a) develop a set of project criteria important to each member and the collective PRWC, and b) score each of the projects based on the developed criteria. The five criteria selected by the members include:

1) Protection of public health
2) Protection of existing infrastructure
3) Improvement of the environment
4) Multiple community/water management benefit
5) Cost effectiveness

Based on the ranking process, a prioritized list of 3 PRWC and 15 local member government projects are being submitted for state funding support for implementation in FY2018-19. Table 2 lists each of the 27 initially identified projects, along with the ranked 3 PRWC and 15 local member government projects, including total project cost, requested state funding, local member government funding and other funding sources. A detailed description of each project is included in the Heartland Headwaters Protection and Sustainability Act Annual Comprehensive Water Resources Report recently published and available from the PRWC. For FY2018-19, $45,350,311 will be required to implement all 27 identified projects, with $32,450,578 committed in local member government funding and $2,066,667 committed in District funding for these projects. The remaining amount of $10,833,067 for the 18 priority projects is being requested from the state and their implementation is subject to approval of state funding for the FY2018-19 funding period.

Table 1. Water Resource Project Category Summary

Project Name	Member Government	Drinking Water	Wastewater (+Reuse)	Stormwater & Flood Control	Environmental Restoration	Conservation
Southeast Wellfield Lower Floridan Aquifer Project - Phase 1	PRWC/Polk BoCC	1				
West Polk Lower Floridan Aquifer Project - Phase 1	PRWC/Lakeland	1				
Peace Creek Integrated Water Supply Plan - Phase 1	PRWC/Winter Haven	1		1	1	1
Combee Water Treatment Plant Ground Storage Tank #2	City of Lakeland	1				
Lakeland-Auburndale Water Interconnection at Pace Road	City of Lakeland	1				
Williams Water Treatment Plant Clearwell Realibility	City of Lakeland	1				
Winter Haven Reuse Water Interconnect	City of Winter Haven	1	1		1	1
Pollard Road Water Plant - Phase 1	City of Winter Haven	1				
Winter Haven AMI/Smart Water Technology	City of Winter Haven	1			1	
NWRUSA Reclaimed Water Recharge Study	Polk County	1	1			1
Water Demand Management Plan	Polk County	1				
English Oaks Force Main Completion	City of Lakeland		1			
Glendale WWTP Energy Efficiencies-Digester System	City of Lakeland		1			
Glendale WWTP Repair Splitter Box 2	City of Lakeland		1			
Northside Pump Station Upgrades, Pumps and Controls	City of Lakeland		1			
Northside WWTP Rehab and Repair Aeration System Phase II	City of Lakeland		1			
WWS3140 - Effluent Transmission and Disposal Facilities	City of Polk City		1		1	
Winter Haven Master Force Main Replacement	City of Winter Haven		1			
NERUSA CR S47 Reclaimed Water Transmission Project	Polk County		1			1
Bingham Avenue Stormwater Remediation	City of Eagle Lake			1		
Eagle Lake Park Stormwater Remediation	City of Eagle Lake			1		
Watershed Evaluation and Watershed Management Plan	City of Fort Meade			1		
Outdoor Best Management Practices	Polk County					1
Water Conservation Incentives - Indoor	Polk County					1
Auburndale AMI/Smart Water Technology	City of Auburndale	1				1
Auburndale/Lakeland Interconnect	City of Auburndale	1				
Auburndale /Winter Haven/polk County Interconnect	City of Auburndale	1				
		14	10	4	4	7

Source: Heartland Headwaters Protection and Sustainability Act Annual Comprehensive Water Resources Report, PRWC, 2017.

Table 2. FY2018-19 Project Cost and Rank

Priority Ranking	Project Name	Member Government	Estimated Completion Date	Total Project Cost (All Years)	Total Project Cost (FY18-19)	State Funding Requested (FY18-19)	Local Govt. Funding (FY18-19)	Other Funds (FY18-19)
CFWI	Southeast Wellfield Lower Floridan Aquifer Project - Phase 1	PRWC/Polk BoCC	November 2021	$9,300,000	$2,325,000	$775,000	$775,000	$775,000
CFWI	West Polk Lower Floridan Aquifer Project - Phase 1	PRWC/Lakeland	August 2020	$1,900,000	$475,000	$158,333	$158,333	$158,333
CFWI	Peace Creek Integrated Water Supply Plan - Phase 1	PRWC/Winter Haven	December 2021	$11,800,000	$2,950,000	$983,333	$983,333	$983,333
Subtotal for Projects Submitted to the CFWI				$23,000,000	$5,750,000	$1,916,666	$1,916,666	$1,916,666
1	Auburndale /Winter Haven/polk County Interconnect	City of Auburndale	September 2019	$300,000	$150,000	$30,000	$30,000	$90,000
2	Auburndale/Lakeland Interconnect	City of Auburndale	September 2018	$500,000	$500,000	$250,000	$250,000	
3	Eagle Lake Park Stormwater Remediation	City of Eagle Lake	June 2019	$500,000	$500,000	$500,000		
4	Bingham Avenue Stormwater Remediation	City of Eagle Lake	June 2019	$650,000	$650,000	$650,000		
5	WW53140 - Effluent Transmission and Disposal Facilities	City of Polk City	May 2019	$1,487,000	$1,487,000	$297,400	$1,189,600	
6	Watershed Evaluation and Watershed Management Plan	City of Fort Meade	October 2019	$160,000	$140,000	$60,000	$20,000	$60,000
7	Water Conservation Incentives - Indoor	Polk County	December 2019	$156,000	$156,000	$78,000	$78,000	
8	Outdoor Best Management Practices	Polk County	July 2021	$192,500	$192,500	$96,250	$96,250	
9	Pollard Road Water Plant - Phase 1	City of Winter Haven	June 2019	$4,900,000	$4,900,000	$2,450,000	$2,450,000	
10	Winter Haven Reuse Water Interconnect	City of Winter Haven	December 2019	$4,000,000	$3,000,000	$1,500,000	$1,500,000	
11	NERUSA CR S47 Reclaimed Water Transmission Project	Polk County	June 2020	$869,500	$769,500	$384,750	$384,750	
12	Winter Haven AMI/Smart Water Technology	City of Winter Haven	September 2020	$1,200,000	$400,000	$200,000	$200,000	
13	Winter Haven Master Force Main Replacement	City of Winter Haven	September 2020	$8,000,000	$4,000,000	$2,000,000	$2,000,000	
14	NWRUSA Reclaimed Water Recharge Study	Polk County	September 2020	$1,348,000	$500,000	$250,000	$250,000	
15	Water Demand Management Plan	Polk County	September 2020	$340,000	$340,000	$170,000	$170,000	
NR	Combee Water Treatment Plant Ground Storage Tank #2	City of Lakeland	September 2020	$1,500,000	$750,000		$750,000	
NR	Lakeland-Auburndale Water Interconnection at Pace Road	City of Lakeland	September 2019	$550,000	$350,000		$350,000	
NR	Williams Water Treatment Plant Clearwell Realibility	City of Lakeland	September 2018	$925,000	$925,000		$925,000	
NR	English Oaks Force Main Completion	City of Lakeland	December 2019	$17,836,000	$12,006,170		$12,006,170	
NR	Glendale WWTP Energy Efficiencies-Digester System	City of Lakeland	October 2018	$12,284,141	$1,284,141		$1,284,141	
NR	Glendale WWTP Repair Splitter Box 2	City of Lakeland	September 2018	$2,000,000	$2,000,000		$2,000,000	
NR	Northside Pump Station Upgrades, Pumps and Controls	City of Lakeland	September 2018	$510,500	$500,000		$500,000	
NR	Northside WWTP Rehab and Repair Aeration System Phase II	City of Lakeland	September 2018	$600,000	$600,000		$600,000	
NR	Auburndale AMI/Smart Water Technology	City of Auburndale	September 2018	$3,500,000	$3,500,000		$3,500,000	
Subtotal for Non-CFWI Local Projects				$64,308,641	$39,600,311	$8,916,400	$30,533,911	$150,000
Total for All PRWC Member Projects				$87,308,641	$45,350,311	$10,833,066	$32,450,577	$2,066,666

Note:

CFWI - These are the highest priority projects in the region and funding support for these projects is being sought through the Central Florida Water Initiative request submitted by DEP.

NR - Indicates that these projects are being implemented by the identified local government using their own funds or other non-state matching funds.

Source: Heartland Headwaters Protection and Sustainability Act Annual Comprehensive Water Resources Report, PRWC, 2017.

Consolidated Annual Report

March 1, 2018

Florida Forever Work Plan

Annual Update 2018

Southwest Florida Water Management District

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Table of Contents

Introduction

In 2008, the Florida Legislature reauthorized the Florida Forever program. The reauthorization continues Florida's successful land acquisition initiative that has included the Save Our Rivers and Preservation 2000 programs. As required by Section 373.199(7), Florida Statutes (F.S.), this report is the District's annual update of its original Florida Forever Work Plan.

The District's approach to the Florida Forever Work Plan is to provide a discussion of those eligible projects that the District could fund through the Florida Forever program over a five-year period and may receive future Florida Forever funding under the Florida Forever Act, Section 259.105, F.S.; depict eligible properties on the maps included in this report; and to report on progress and changes since the report's last update.

The Florida Forever Act provides for the issuance of up to $3 billion in bonds through 2020 to state agencies, water management districts and local governments. Water management district funding is to be used for land acquisition (including less-than-fee purchases), water resource development and water body restoration. Over the life of the program, at least 50 percent of the funds allocated to the water management districts must be spent on land acquisition.

The annual update is organized into eight sections including the introduction, modifications to last year's Florida Forever Work Plan, land acquisitions completed during fiscal year 2017, land acquisition status, lands surplused during fiscal year 2017, summaries of land management activities, five-year resource management budget information, and project maps and lands identified for potential acquisition by planning region.

Florida Forever funds must contribute to achieving the following goals, found in Section 259.105, F.S.:

- Enhance the coordination and completion of land acquisition projects.
- Increase the protection of Florida's biodiversity at the species, natural community, and landscape levels.
- Protect, restore, and maintain the quality and natural functions of land, water, and wetland systems of the state.
- Ensure that sufficient quantities of water are available to meet the current and future needs of natural systems and the citizens of the state.
- Increase natural resource-based public recreational and educational opportunities.
- Preserve significant archaeological or historic sites.
- Increase the amount of forestland available for sustainable management of natural resources.
- Increase the amount of open space available in urban areas.

The District will use its Florida Forever funding to support multiple land acquisition projects and one capital improvement project through FY2018. Figure 1 shows the allocation between land acquisition and capital improvement funding.

Figure 1. Expenditures, Budget and Projection for Capital Improvements and Land

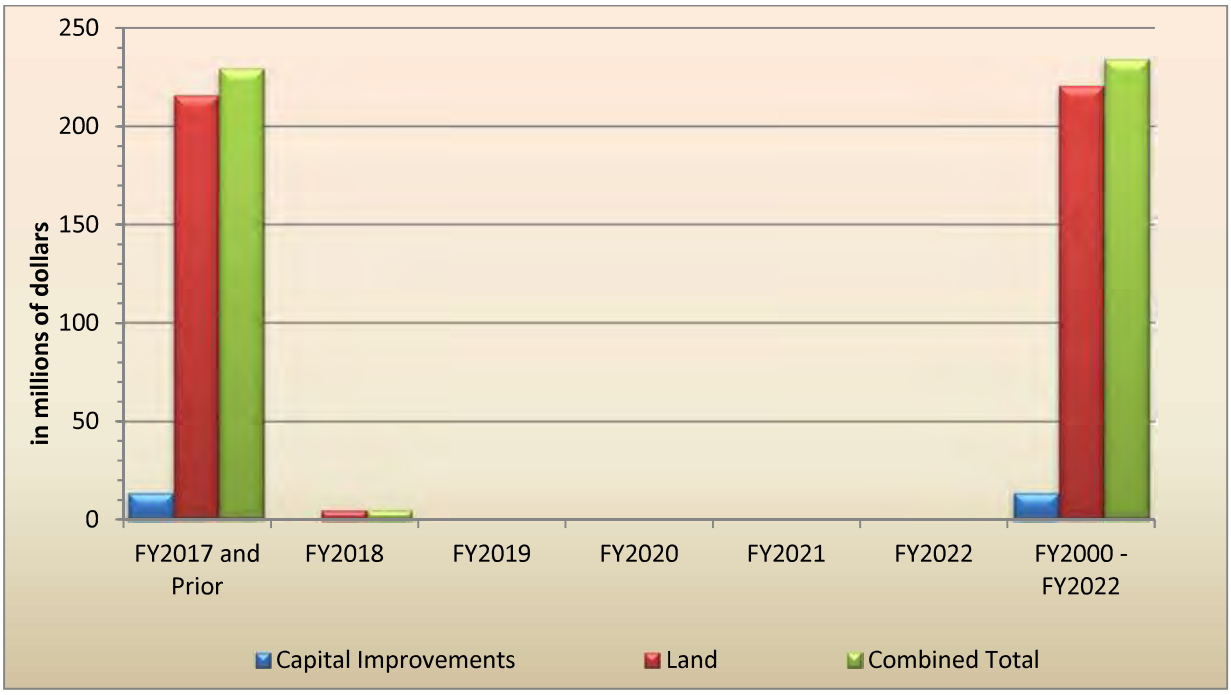


Table 1 provides expenditure, budget and projection by program and project over a five-year period. Individual water resource development and restoration projects are listed with projected Florida Forever funding provided for land acquisition and capital improvements. The budget for FY2017-2018 consists of $4.59 million of the remaining prior year Florida Forever Trust Fund allocations.

Table 1. Florida Forever Work Plan Project Funding

(Numbers shown are in millions of dollars)

Project	FY2016-2017 & Prior		FY2017-2018		FY2018-2019		FY2019-2010		FY2010-2021		FY2021-2022		Total	
	Cap Imp	Land	Cap Imp	Land	Cap Imp	Land	Cap Imp	Land	Cap Imp	Land	Cap Imp	Land	Cap Imp	Land
Water Resource Development														
○ Lake Hancock Lake Level Modification & Ecosystem Restoration		76.66												76.66
○ Lakes Horse, Raleigh and Rogers Recovery Project		0.06												0.06
Water Resource Development Total		76.72												76.72
Restoration														
○ Lake Hancock Outfall Treatment System	13.44	5.00											13.44	5.00
Restoration Total	13.44	5.00											13.44	5.00
Conservation Land Acquisition Total		133.88		4.59										138.47
Capital Improvements & Land Acquisition Subtotals	13.44	215.60		4.59									13.44	220.19
Grand Totals	**$228.04**		**$4.59**										**$233.63**	

Project Modifications and Additions to the SWFWMD Florida Forever Work Plan

No modifications have been made to the 2018 Work Plan, other than updating acres owned, managed and surplused; and funds budgeted.

Restoration Projects

Listed below are the District restoration projects for which Florida Forever funding is being requested.

Lake Hancock Outfall Treatment System

Cooperators – District, State of Florida and federal government

Purpose – The purpose of this project is to improve the quality of water discharging from Lake Hancock into South Saddle Creek, the outflow channel from Lake Hancock, by constructing a regional water quality treatment system. This treatment system will remove nutrients and pollutants that Lake Hancock and its watershed contribute to the Peace River and Charlotte Harbor, an estuary included in the National Estuary Program.

Need – Nitrogen has been identified as the primary target nutrient in restoring water quality in the Peace River and preventing degradation of Charlotte Harbor, a Surface Water Improvement and Management priority water body. Historical data has shown that the Saddle Creek drainage basin, one of nine subbasins in the Peace River watershed, contributes approximately six percent of the total flow of the Peace River, yet contributes approximately 13 percent of the watershed's total annual nitrogen load. The Peace River ecosystem routinely suffers from algae blooms during periods of low flows and warm weather. These events not only affect the fish and wildlife associated directly with the river and estuary, but also affect the region's largest potable surface water supply system, operated by the Peace River/Manasota Regional Water Supply Authority. Many of the basins along the Peace River, including Lake Hancock, have been identified by the Florida Department of Environmental Protection as impaired under the Clean Water Act, requiring that Total Maximum Daily Loads be established. Water quality treatment of discharges from Lake Hancock has been identified as the most cost-effective means of reducing nitrogen loads into the Peace River and Charlotte Harbor. Additionally, improvements in the South Saddle Creek ecosystem will enhance a major greenway that extends from Charlotte Harbor through the Peace River watershed and Green Swamp and further north to the Ocala National Forest.

Florida Forever Program Interest – Florida Forever funds have been and will continue to be used for land acquisition and capital project expenditures for the water quality treatment project. Florida Forever land acquisition funding totals $4.9 million, and a total of $13,386,386 has been expended, and 49,060 is encumbered within the Florida Forever Trust fund for capital project expenditures such as design, permitting and construction to significantly improve water quality entering the Peace River.

Description – Discharges from Lake Hancock will be diverted to a water quality treatment system located at the south end of the lake and in the vicinity of South Saddle Creek, the tributary between the lake and the Peace River. The District acquired the 3,500-acre, Old Florida Plantation planned development property, and portions of this tract of land are being utilized for the outfall treatment project. At the February 2006 Governing Board meeting, the Board approved the staff recommendation for a 27 percent nitrogen load reduction goal and to utilize constructed wetlands as the primary treatment component. The treatment wetland will require ongoing operation and maintenance.

Schedule

Monitoring/Feasibility Study 2004-2007

Design and Permitting..... 2007-2010

Land Acquisition..... 2003-2004

Construction..... 2011-2014

Operation and Maintenance..... Ongoing

Table 2. Lake Hancock Outfall Treatment System Funding

Funding Source	Prior Years	FY2017-2018	Future Years	Totals
District	$21,165,586		$4,000,000	$25,165,586
State Appropriation (ECO)	1,750,000			1,750,000
State Appropriations (WRAP)	1,000,000			1,000,000
State SWIM	655,140			655,140
Water Protection Sustainability Trust Fund	325,000			325,000
Water Management Lands Trust Fund	4,529,927			4,529,927
Requested Federal Funds	773,700			773,700
Total	**$30,199,353**	**0**	**$4,000,000**	**$34,199,353**

Note: This is a multi-year funded project. In fiscal years 2003, 2004, 2006, 2008, 2009 and 2010, $30,199,353 was budgeted as follows: $18,335,446 from Florida Forever for land acquisition ($4,900,000) and capital project expenditures ($13,435,446), $2,750,000 from state appropriations (ECO & WRAP), $773,700 from the United States Environmental Protection Agency (USEPA), $1,890,070 from the Governing Board, $940,070 from the Peace River Basin Board, $655,140 from State SWIM, a reallocation of $325,000 from the FY2006 and FY2007 Water Protection Sustainability Trust Fund, and a reallocation of $4,529,927 from the FY2009 Water Management Lands Trust Fund. Operation and maintenance costs are not reflected in Table 2.

Project Status – District staff have been successful in acquiring property at the desired location. District staff procured the services of an engineering consultant to evaluate treatment options and assist with design and permitting of the outfall treatment project. Treatment wetlands are the recommended technology based on costs, proven track record and ancillary benefits. Construction of the project began on September 26, 2011 and was completed in June 2014. Operation to date has focused on vegetation recruitment across the site to achieve nutrient load reductions. Future activities include enhancements to increase recruitment and vegetative coverage across the open water portions of the system. The District is responsible for long-term operation and maintenance.

District Land Acquisition Status

The following table depicts all lands owned in fee simple and less-than-fee (LTF) interests acquired by the District as of September 30, 2017.

Table 5. District Land Acquisition Status

Management Unit	County	Fee Acres Acquired	LTF Acres Acquired	Total Acres Acquired
Alafia River Corridor	Hillsborough	4,498	1,498	5,996
Alafia River Reserve	Polk	334		334
Annutteliga Hammock	Hernando	2,317		2,317
Bright Hour Watershed	DeSoto		32,247	32,247
Brooker Creek Headwaters	Hillsborough	1,039	67	1,106
Brooker Creek Preserve	Pinellas	1,635		1,635
Charlotte Harbor Preserve State Park	Charlotte	7,421		7,421
Chassahowitzka River and Coastal Swamps	Citrus	5,678	4	5,682
Chito Branch Reserve	Hillsborough	5,478		5,478
Cliff Stephens Park/Alligator Creek	Pinellas	44		44
Conner Preserve	Pasco	3,486		3,486
Crooked Lake/Bowlegs Creek	Polk	3,587		3,587
Cypress Creek	Pasco	7,473	815	8,288
Deep Creek/Lower Peace River	DeSoto	2,105		2,105
Edward Medard Park/Reservoir	Hillsborough	1,291		1,291
Edward W. Chance Reserve – Coker Prairie Tract	Manatee	2,136		2,136
Edward W. Chance Reserve – Gilley Creek Tract	Manatee	5,798	37	5,835
Flying Eagle Preserve	Citrus	16,338	100	16,438
Green Swamp – Colt Creek State Park	Polk	5,068		5,068
Green Swamp – East Tract	Lake, Polk & Sumter	67,530	4,180	71,710
Green Swamp – Little Withlacoochee Tract	Lake	4,622	19,545	24,167
Green Swamp – West Tract	Pasco	36,659	4,970	41,629
Half-Moon Wildlife Management Area – Gum Slough	Marion & Sumter	4,164	5,827	9,991
Hálpata Tastanaki Preserve	Marion	8,189		8,189
Hidden Lake	Pasco	589		589
Hillsborough River Corridor	Pasco	276	79	355
Jack Creek	Highlands	1,287		1,287

Management Unit	County	Fee Acres Acquired	LTF Acres Acquired	Total Acres Acquired
Jerry Lake	Pinellas	80		80
Lake Hancock - Circle B Bar Reserve	Polk	1,268		1,268
Lake Hancock - Marshall Hampton Reserve	Polk	1,167		1,167
Lake Hancock Project	Polk	4,800	1,179	5,979
Lake Lowry	Polk	394		394
Lake Marion Creek Horseshoe Scrub	Polk	290		290
Lake Panasoffkee	Sumter	9,881	5,486	15,367
Lake Tarpon Outfall Canal	Pinellas	161	101	262
Lake Tarpon Sink Enclosure	Pinellas	10		10
Lake Thonotosassa	Hillsborough	144		144
Little Manatee River – Southfork Tract	Manatee	971		971
Little Manatee River – Upper and Lower Tracts	Hillsborough	6,605		6,605
Lower Cypress Creek	Hillsborough		290	290
Lower Hillsborough	Hillsborough	16,085	3	16,088
Lower Manatee River Floodway	Manatee	42		42
Masaryktown Canal	Hernando & Pasco	170		170
Myakka Conservation Area	Sarasota	4,747	18,283	23,030
Myakka Conservation Area – Lewis Longino Preserve	Sarasota		3,422	3,422
Myakka River – Deer Prairie Creek	Manatee & Sarasota	6,136		6,136
Myakka River – Flatford Swamp	Manatee	2,357	1,088	3,445
Myakka River – Schewe Tract	Sarasota	3,993		3,993
Myakka River State Park – Myakka Prairie Tract	Sarasota	8,248		8,248
Myakka State Forest	Sarasota	8,565	15	8,580
Panasoffkee/Outlet Tract	Sumter	813		813
Peace Creek Canal System	Polk	3	18	21
Potts Preserve	Citrus	9,375	3	9,378
Prairie/Shell Creek	Charlotte	609		609
Rainbow River	Marion	112	12	124
RV Griffin Reserve	DeSoto	5,919		5,919
Sawgrass Lake	Pinellas	398		398
Starkey Wilderness Preserve	Pasco	19,639	114	19,753
Structure Sites/Office Sites	Various	96	28	124

Management Unit	County	Fee Acres Acquired	LTF Acres Acquired	Total Acres Acquired
Tampa Bay – Clam Bayou	Pinellas	84		84
Tampa Bay – Ekker Preserve	Hillsborough	84		84
Tampa Bay – Frog Creek	Manatee	127		127
Tampa Bay – Schultz Preserve	Hillsborough	132		132
Tampa Bay – TECO Tract	Hillsborough	2,524		2,524
Tampa Bay – Terra Ceia Preserve State Park	Manatee	1,463		1,463
Tampa Bay – Terra Ceia/Huber Tract	Manatee	287		287
Tampa Bypass/Harney Canal	Hillsborough	1,376	321	1,697
Three Sisters Springs	Citrus	57		57
Tsala Apopka Outfall Canal	Citrus	3	141	144
Two-Mile Prairie – Tsala Apopka Connector	Citrus	487		487
Two-Mile Prairie – Withlacoochee State Forest	Citrus	2,898		2,898
Upper Hillsborough Preserve	Hillsborough, Pasco & Polk	9,551	7,802	17,353
Upper Saddle Creek	Polk	38		38
Weeki Wachee Springs State Park	Hernando	539		539
Weekiwachee Preserve	Hernando & Pasco	11,274		11,274
Wysong Project	Sumter	4	1	5
TOTAL		**343,048**	**107,676**	**450,724**

Note: *Acreages derived using geographic information system software*

Surplus Lands

The following table depicts lands surplused by the District during fiscal year 2017.

Table 6. Surplus Lands

Project	County	Acres Surplused	Compensation	Parent Tract Funding Source	Comments
Chito Branch Reserve	Hillsborough	89	2,295,000	Preservation 2000	Sold fee simple title
Edward W. Chance Reserve – Gilley Creek Tract	Manatee	12	11,346	Water Management Lands Trust Fund	Exchanged with private owner
Green Swamp Wilderness Preserve – West Tract	Pasco	711	2,123,057	Water Management Lands Trust Fund	Retained conservation easement
Lake Hancock	Polk	29	676,101	Ad Valorem	Sold fee simple title
Tampa Bay – Pine Island Tract	Manatee	66	0	Florida Forever	Transferred to Manatee County
Tampa Bypass Canal	Hillsborough	1	75,000	Ad Valorem	Sold fee simple title
Total		**908**	**$5,180,504**		

Land Management Activities

The District has developed numerous management partnerships that match land use to agency mission. For example, Colt Creek State Park was purchased with District, State and Polk County Florida Forever funds, yet it is managed as a state park. Hunting at the Green Swamp is via a wildlife management area with the Florida Fish and Wildlife Conservation Commission. Approximately 95 percent of the District's conservation lands have an approved management plan. The following is a brief description of land management activities for properties owned by the District.

Alafia River (including Alafia River Corridor, Chito Branch Reserve and Alafia River Reserve) – The Alafia River Corridor contains parcels of land along the Alafia River corridor from Bell Shoals Road and extends upstream to the headwaters of the river. The river's natural floodplain is a mixture of hardwood swamps and upland hammocks. Acquisition of the land within Hillsborough County was co-funded by the District and the County with fee simple title conveyed to the District. In 1996 the District entered into a lease agreement with Hillsborough County that designated the County as manager of lands jointly purchased by the County and the District. Recreational improvements provided by Hillsborough County include hiking trails, equestrian trails, fishing, primitive and group camping. Project lands in Hillsborough County acquired by the District for the C.W. "Bill" Young Reservoir are jointly managed by the District and Tampa Bay Water and are known as the Chito Branch Reserve. In Polk County, the District and the County have co-funded and co-own the Alafia River Reserve. Polk County is responsible for a park site on the property and the District is responsible for resource management and trail development.

Annutteliga Hammock – The Annutteliga Hammock project is located in Hernando and Citrus counties, generally within a regional area located between Homosassa Springs to the northwest, the Withlacoochee State Forest to the northeast, Brooksville to the southeast and Weeki Wachee Springs to the southwest. The Annutteliga Hammock area supports an important and unique assemblage of high quality temperate upland hardwood forest and exceptional caliber sandhills along the Brooksville Ridge. Preservation of the remaining large contiguous areas of the hammock region will protect some of the best remaining examples of those community subtypes that are the most endangered or rarest along the Brooksville Ridge. Since lands acquired to date are for the most part not contiguous, recreational use is limited to foot traffic and equestrian riding on more than eight miles of marked trails. Land management activities consist of security, prescribed burning, resource monitoring, exotic species control, and public use/recreational development and monitoring.

Bright Hour Watershed – The project area consists of extensive, high quality prairie, hammock, marsh and slough systems that provide water management benefits for a traditionally water-poor region. Hydrologic values include protection of the headwaters of several important creek systems, such as Prairie and Shell creeks. Water storage, conveyance and flood control are also provided by the watershed's poorly drained landscape. Habitat protection for numerous rare plant and animal species and globally imperiled, high quality natural communities is amply afforded by this project. Since the District does not hold fee simple title, land management activities consist of monitoring the terms of the conservation easements.

Brooker Creek – The Brooker Creek Headwaters Nature Preserve, located in Hillsborough County, remains as islands of undeveloped natural and rural lands in the changing landscape of northwest Hillsborough County. The lands include several extensive and interconnected cypress swamps, which form the headwaters of Brooker Creek. These headwater swamps are an important water resource feature on their own, as well as for their contribution to downstream elements of the creek. Lands within the Brooker Creek Headwaters are managed by Hillsborough County. The County has developed and made available several miles of unimproved interior roads that are open to hikers. The dominant habitats within the Brooker Creek Preserve, located in Pinellas County, include cypress and mixed hardwood swamps along portions of Brooker Creek. As part of the area's natural drainage system, Brooker Creek is an important water resource feature. Local low-lying areas are drained by the creek's system of sloughs and swamps. Floodplain vegetation offers treatment of runoff prior to discharging into Lake Tarpon. Lands within the Brooker Creek project in Pinellas County are managed by Pinellas County. Recreational

improvements/amenities available on the tract include equestrian trails, hiking trails and an interpretive foot trail. Land management activities primarily consist of coordination with the lead land managers.

Charlotte Harbor State Park – The Charlotte Harbor Save Our Rivers project was jointly purchased between the District and the State of Florida's Conservation and Recreation Lands (CARL) program. Lands within the project area are characterized by a variety of natural lands including isolated freshwater marshes, tidal marshes and tidal swamps. Under a management agreement with the State, the Florida State Parks is the lead land manager for the project. Currently the park offers canoeing and boating. Land management activities consist primarily of coordination with State Parks, the land manager.

Chassahowitzka River and Coastal Swamps – The Chassahowitzka River and its expansive coastal swamps are located in western Citrus County. This project includes nearly two miles along the Chassahowitzka River and includes Chassahowitzka Springs, which forms the river's headwaters. The project is contiguous with the federally owned Chassahowitzka National Wildlife Refuge to the west, the State's Homosassa Reserve to the north and the Chassahowitzka Wildlife Management Area to the south. The project contains the Chassahowitzka River Campground, which is operated and maintained by Citrus County. Recreational activities/amenities available are primarily managed by Citrus County and include canoe/boat launch, campsites (some with full hook-ups), canoe rental; picnic pavilions; restrooms; potable water; and primitive camp sites along the river. Hunting is managed by the Florida Fish and Wildlife Conservation Commission. Land management activities consist of prescribed burning, resource monitoring, land maintenance, fence repair and recreational monitoring.

Conner Preserve – The Conner Preserve is located in Pasco County and includes the upper portion of Cypress Creek, a regionally important surface water feature and tributary creek of the Hillsborough River. Cypress Creek originates near I-75, east of CR 581 and north of CR 578 and has a contributing watershed of 74.5 square miles. Land use of the project area is primarily agricultural, dominated by several large cattle ranches. Land cover consists primarily of improved pasture, rangeland, live oak hammocks, pine flatwoods, xeric oak/longleaf pine, cypress domes and freshwater marshes/wet prairies. The project includes a number of shallow lakes, many of which include extensive marshes or open prairies. The project area itself is located between the District's Cypress Creek Preserve and the Cross Bar/Al-Bar Ranch complex, representing two major public supply wellfields operated by Tampa Bay Water. Recreational activities/amenities available include primitive camping, 1.7 miles of hiking trails, and approximately 15 miles of shared-use trails for hiking, horseback riding and biking. Land management activities consist of prescribed burning, restoration, resource monitoring and recreational development/monitoring.

Crooked Lake/Bowlegs Creek – Located in Polk County, the Crooked Lake/Bowlegs Creek project represents opportunities to protect important water resource ecosystems in the east central region of the District. Acquisition benefits include protecting important areas and habitat for aquifer recharge associated with the Lake Wales Ridge (Ridge), and protecting the water quality of Crooked Lake and the other Ridge lakes receiving flow from Crooked Lake (Lake Clinch and Lake Reedy). Crooked Lake is one of the largest lakes within the Ridge and is the only designated the Outstanding Florida Water (OFW) in Polk County. The lake has good water quality as a result of existing shoreline vegetation coverage and relatively little urbanization. Although the alteration of natural lands throughout the region has resulted in habitat loss and fragmentation, this tract represents one of the few larger tracts remaining relatively intact and more importantly, is the last remaining large tract adjacent to a large Ridge lake. Lands within the project are jointly owned by the District and Polk County, and contain easements acquired by the United States Department of Agriculture/Natural Resources Conservation Services. Polk County manages the property.

Cypress Creek Preserve – The Cypress Creek Preserve includes the heavily forested Cypress Creek swamp, formed by its namesake, Cypress Creek, as it flows to the Hillsborough River. As part of the tributary system to the Hillsborough River, the project serves both a water detention role and a water conveyance role. Additionally, the low-lying swamps provide treatment and assimilation of runoff waters. Recreational activities/amenities available include non-potable water, equestrian/group and primitive camping, 3.5 miles of hiking trails, and approximately 15.5 miles of shared-use trails for hiking, horseback riding and biking. Land management activities include prescribed burning, mowing, exotic species

control, timber management, resource management, and public use and recreation development/maintenance.

Edward W. Chance Reserve – In 2007, the former Lake Manatee Reserve, was dedicated and renamed as the Edward W. Chance Reserve, in honor of departed Governing Board member, Ed Chance. The Reserve extends over a large area which includes narrow floodplain forests and native pine lands surrounded by vast areas of rangeland, improved pastures, croplands, and citrus groves. Lands purchased within this project protect an existing regional water resource, protect floodplains, and restore adjoining wetlands in the headwaters. Recreational activities/amenities available include non-potable water, more than 10 miles of hiking trails and approximately 13 miles of shared-use trails for hiking, horseback riding and biking. Management units include the Coker Prairie and Gilley Creek Tracts. Land management activities include prescribed burning, mowing, exotic species control, timber management, resource management, public use and recreation development/maintenance.

Flying Eagle Preserve – The Flying Eagle Preserve is located within the Lake Tsala Apopka region of Citrus County. The property includes over five miles of frontage on the Withlacoochee River and its forested floodplain. A broad expanse of mixed hardwoods and cypress swamps cover the floodplain along the river. Areas of hammocks and xeric oak scrub lands occur throughout the higher elevations of the interior portions. Scattered marshes and wet prairies complete the landscape. The Tsala Apopka system is important because it has been described as a primary recharge area for the Floridan aquifer. Recreational activities/amenities available at Flying Eagle include non-potable water, 4 miles of hiking trails and approximately 18 miles of shared-use hiking, horseback riding and bicycle trails; and primitive and equestrian camping. Hunting, which is managed by the Florida Fish and Wildlife Conservation Commission, is also available.

Green Swamp Wilderness Preserve (including Colt Creek State Park) – The Green Swamp Wilderness Preserve (GSWP) includes several efforts directed at protecting headwater swamps, floodplains and watershed areas in the Green Swamp region and along two of its principal river systems (Withlacoochee and Hillsborough). The GSWP, which includes Green Swamp East and Green Swamp West, is the District's largest landholding and also includes Colt Creek State Park. The Green Swamp and its river systems are of hydrologic importance to central Florida, both in terms of surface water and ground water resources. Four river systems have their origin in the low-topography headwaters of the Green Swamp. Swamps, floodplains and headwaters serve as natural flood detention areas, while uplands serve as areas for recharge. Recreational amenities on District-managed lands in the GSWP include non-potable water, over 31 miles of hiking trails (including approximately 15 miles of the Florida National Scenic Trail) and 140 miles of shared-use hiking, horseback riding and bicycle trails; and primitive, equestrian and backcountry camping. Hunting is managed by the Florida Fish and Wildlife Conservation Commission. Land management activities in the GSWP include prescribed burning, resource monitoring, natural systems restoration, mowing, exotic species control, security patrol, and public use and recreational development/maintenance.

Gum Slough – Lands within the Gum Slough property are located within Marion and Sumter counties and are dominated by densely forested swamps and hammocks. Nearly 1,100 acres of forested hardwood swamps that line the Gum Slough run from a common boundary with state-owned lands to the east (Half-Moon Wildlife Management Area). The lands within the area offer protection to portions of the Withlacoochee River, Gum Slough and its various hydrologic characteristics. Recreational improvements/ amenities available on the property are: non-potable water, shared-use trails available for hiking, bicycling and horseback riding, and woods roads available for hiking and hunting. The property is managed by the Florida Fish and Wildlife Conservation Commission.

Hálpata Tastanaki Preserve – The Hálpata Tastanaki Preserve adjoins the Marjorie Harris Carr Cross Florida Greenway. Primary surface water features include five miles of floodplain along the northern bank of the Withlacoochee River. The isolated wetlands and marshes scattered throughout the site form the site's internal drainage system and provide local surface water storage. The site of Fort Izard, an important battleground during the second Seminole War, is located within the project lands. Recreational activities/amenities include approximately 4 miles of hiking trails and more than 12 miles of shared-use trails for hiking, horseback riding and bicycling. Land management activities include

prescribed burning, natural systems restoration, timber management, exotic species control, resource monitoring, recreation development/maintenance and security.

Hidden Lake – The Hidden Lake project is located in west-central Pasco County and is part of an interconnected system of lakes within the Rocky Sink/Boggy Creek basin of the Bear Creek Watershed. District ownership ensures protection of the lake and the surrounding forested wetlands and will help preserve water quality within the lake and sub-basin. Recreational use of the lands within the project is extremely limited due to development in the vicinity and the fact that the lands are essentially a "lake swamp." Limited land management is required, primarily security patrol for illegal activities (dumping and archaeological digging).

Jack Creek – The Jack Creek project, located in Highlands County, includes a significant part of Jack Creek, its 100-year floodplain and outlying forested areas associated with the creek system and local lake outflow wetlands. The project area also includes portions of sand pine scrub and mixed scrub–among Florida's most unique threatened upland habitats. Jack Creek and its associated swamps serve as the natural drainage basin for the immediate area, as well as the water conveyance system for lakes in the area. Land management activities consist of prescribed burning, security patrol, public use/recreation maintenance and enhancements, exotic species control, mowing and monitoring for listed plants and animals. Recreational amenities/activities on the Jack Creek property are limited to 6.5 miles of hiking trails due to its remote location, environmental sensitivity and access constraints.

Lake Hancock – Lake Hancock is located southeast of the City of Lakeland and north of the City of Bartow in Polk County. At approximately 4,500 acres, Lake Hancock is the largest lake associated with the Peace River and the third largest lake in Polk County. A requirement of the statutorily mandated minimum flow establishment is the development of a recovery strategy. Part of the proposed strategy for the upper Peace River is to restore storage in Lake Hancock and release some of the water during the dry season to help meet the flow requirements. Historically, Lake Hancock fluctuated more than a foot higher than it has during the past several decades. Lands acquired within this project will assist in reversing those impacts by replacing the District's outfall structure so that water levels can be maintained at historical levels. The District and Polk County jointly acquired the Circle B Bar Reserve along the lake. The Reserve is managed by the County and provides hiking trails and picnic tables for recreationists. The County also manages the Marshall Hampton Reserve within the project area.

Lake Panasoffkee – The Lake Panasoffkee project is located in Sumter County and is comprised of a large, contiguous area of relatively undisturbed lands along the eastern portion of the lake's watershed. The project extends north to include Big Jones and Little Jones creeks, both tributaries to the lake. Wetlands dominate the area with extensive mixed hardwood and maple swamps, lake front marshes and willow areas. Lands within the project protect local and regional drainage features and provide storage and detention of surface waters, while providing important wildlife resources. Recreational activities/amenities include non-potable water, more than 15 miles of shared-use hiking, horseback riding and bicycle trails; group picnic pavilion, horse stalls, primitive and equestrian camping, restrooms and a campground host. The Florida Fish and Wildlife Conservation Commission manages hunting on the property. Land management activities include exotic species control, land security, cattle lease management, maintenance of facilities located on the property, public use, recreation development/maintenance, prescribed burning, timber management, natural systems restoration and resource monitoring.

Little Manatee River – The Little Manatee River project, located in Hillsborough and Manatee counties, contains parcels of land along the Little Manatee riverine corridor from downstream estuarine waters to the river's headwaters. Dense forest dominates the land along the river's floodplain with the adjoining uplands being comprised of a mixture of pine flatwoods, mixed hardwoods and shrub and brushlands. The District has entered into an interlocal agreement with Hillsborough County wherein the County has lead responsibility for lands jointly purchased by Hillsborough County and the District. Lands within Manatee County, known as the Southfork Tract, are managed by the District, and include approximately 6 miles of hiking trails. Recreational improvements/amenities made available by the County include: canoe landing sites adjacent to primitive campsites along the river, fishing, and hiking

trails. District land management activities on the Southfork Tract consist of road stabilization, prescribed burning, natural systems restoration, mowing and recreational development/maintenance.

Lower Hillsborough Wilderness Preserve – The Lower Hillsborough Wilderness Preserve includes several miles of the Hillsborough River and its broad floodplain. The project contains important areas of natural flood conveyance and storage and contains the Morris Bridge Wellfield. Recreational activities available include five developed park sites managed by Hillsborough County including such amenities as hiking, equestrian and bicycle trails, picnic pavilions, restrooms, boat launches and visitor centers. The District has also made available an additional 25 miles of equestrian trails. Hunting is managed by the Florida Fish and Wildlife Conservation Commission. Land management activities include exotic species control, land security, public use and recreation development/ maintenance, prescribed burning, timber management, wildlife management, natural systems restoration and mowing.

Lower Peace River Corridor (including Deep Creek) – Located in DeSoto County, lands within the project include an extensive network of tributaries, floodplain swamps and connected headwaters. Recreational activities available include non-potable water, approximately 2 miles of hiking trails; more than 6 miles of shared-use trails for hiking and horseback riding; and backcountry and equestrian camping. Land Management activities include prescribed burning, mowing, exotic species control, recreational amenity development/monitoring and security.

Myakka River/Deer Prairie Creek/Myakka State Forest – A majority of the lands within the Myakka River project were jointly purchased with the State of Florida's Conservation and Recreation Lands (CARL) program (Myakka State Forest) and Sarasota County (Deer Prairie Creek). Lands within the project area are characterized by a variety of natural lands and lands altered by development including mesic pine flatwoods, oak hammocks, shell mounds, prairie hammock and improved pasture. The project area includes portions of the Myakka River and its floodplain forests. Lands included within the Myakka State Forest are managed by the Florida Forest Service (FFS). The FFS has made the following recreational improvements/amenities available on the property: shared-use trails for bicycling, horseback riding and hiking, and primitive camping. Lands within Deer Prairie Creek are jointly managed by the District and Sarasota County. Land management activities include fencing, road maintenance, exotic species control, recreation development/maintenance, public use, prescribed burning and mowing.

Myakka Conservation Area (including Myakka Prairie) – The Myakka Conservation Area consists of oak/cabbage palm hammock dominated banks along the southern portions of the creek, isolated marshes and improved pastures within the upland portions and mixed natural lands scattered throughout. The property is characterized by the region's flat topography and includes landscapes of extensive shrub and brushlands, pine flatwoods and pastures. Numerous isolated freshwater marshes dot the site's flatlands. The main surface water feature, Myakkahatchee Creek, is a 21.5-mile long tributary creek of the Myakka River. Approximately 4,700 acres are managed by Sarasota County. The Myakka Prairie is adjacent to lands within the Myakka River State Park and is managed by the Florida State Parks. Recreational development/amenities on the property made available by the State Parks include hiking, bicycling and horseback riding trails. District land management activities primarily consist of exotic species control and conservation easement monitoring.

Panasoffkee/Outlet Tract – Lands within the Panasoffkee/Outlet Tract extend over three miles along the eastern floodplain of the Withlacoochee River. For the most part, the areas are representative of the river's five-year floodplain, which include the regularly flooded cypress and mixed hardwood forests, as well as some areas of temperate hammock. Preservation of these lands along the river will maintain their function and protect forested swamps important to the water resources and water quality of the river system. Recreational activities on the property include approximately 3 miles of hiking trails, fishing and a boat access. Land management activities include prescribed burning, mowing, road maintenance, exotic species control, cattle lease management, public use and recreation development/ maintenance.

Potts Preserve – The Potts Preserve is located within the Lake Tsala Apopka region in eastern Citrus County and includes portions of the Hernando Pool. The Preserve's eastern boundary is formed along 5 ½ miles of the Withlacoochee River and its associated floodplain. The lands are a mixture of lakes, ponds and marshes surrounding islands of oak forests and lands partially cleared for agriculture. The Tsala Apopka system is considered important as an area of recharge for the Floridan aquifer. Recreational activities/amenities available include non-potable water; approximately 12 miles of hiking trails; 8 miles of shared-use trails for hiking, horseback riding and bicycling; equestrian and backcountry camping; and boat launch. Hunting is also allowed on the property. Land management activities include public use and recreation development/maintenance, land security, prescribed burning, natural systems restoration and mowing.

Prairie/Shell Creek – The Prairie/Shell Creek project is envisioned as a greenway corridor from the mouth of the Peace River to the District's Bright Hour Watershed project to the north and to the State's Babcock Ranch to the south. Recreational activities/amenities available include approximately 5 miles of hiking trails. Land management activities include prescribed burning, resource monitoring, resource protection and recreational development.

Rainbow River – The District's Rainbow River project is located along the eastern bank of the Rainbow River below the head spring. The property is in Marion County adjacent to the Rainbow Springs State Park. Rainbow Springs is the seventh largest first magnitude spring in Florida and is the primary source of water for the Rainbow River which flows for approximately 5.7 miles until it flows into the Withlacoochee River. The District's Rainbow River Ranch tract comprises about 16 percent of the eastern bank of the Rainbow River and is the last major undeveloped property along the eastern bank of this natural river corridor. Its shoreline includes marshes, wetlands and giant bald cypress trees. The property will be managed by Florida Park Service as part of Rainbow Springs State Park. The District is developing two projects to restore natural communities and improve water quality.

RV Griffin Reserve (including Lewis Longino Preserve) – The RV Griffin Reserve is located in DeSoto and Sarasota counties and includes lands supporting and surrounding the existing facilities at the Peace River/Manasota Regional Water Supply Authority treatment plant. Lands in the project area include mixed hardwood forests along the river; however, the majority of the lands consist of pine flatwoods, rangelands, pastures and pine plantations. The Reserve supports and protects present potable water supplies. The Water Supply Authority manages the approximately 6,000 acres owned in fee. Recreational activities/amenities include shared-use trails available for bicycling, horseback riding and hiking. The District monitors the conservation easement known as the Lewis Longino Preserve.

Sawgrass Lake – Acquisition of the Sawgrass Lake project began in the 1970s to provide flood protection to the City of Pinellas Park. A water control structure was built to facilitate drainage canal improvements and to maintain desirable water level fluctuations in Sawgrass Lake and the surrounding swamp. The lake and swamp system provide natural water treatment to enhance the quality of water draining to Tampa Bay. In 1976, the District, Pinellas County and the Pinellas County School Board cooperatively agreed to establish a county park and an environmental education center on the site. The property is managed by Pinellas County and Pinellas County School Board. Pinellas County has developed a wide array of recreational amenities on the property including: restrooms, potable water, elevated boardwalks, hiking trail, nature center, outdoor interpretive displays; and they offer interpretive tours by reservation. The School Board has established an environmental education program that serves area students from kindergarten through fifth grade.

Starkey Wilderness Preserve – Located in Pasco County, lands within the Starkey Wilderness Preserve are a combination of pine flatwoods, sandpine scrub, oak forests, scattered marshes and cypress swamps. The project lands are a part of the contributing watershed of the Anclote River. The Starkey Wellfield and part of the J. B. Starkey Wilderness Park are located within the project limits. Recreation at the Starkey Wilderness Park is managed by Pasco County, while the District manages recreation on the Serenova and Anclote Ranch tracts. Recreational activities/amenities available at Starkey Wilderness Park include paved bicycle trails, equestrian trails, hiking/backpacking trails, cabin rental, primitive camping, horse corral, picnic pavilions, self-guided educational nature trail and restrooms. Recreational amenities on the Serenova tract include approximately 20 miles of shared-use

hiking, horseback riding and bicycle trails; and equestrian and primitive camping. Land management activities on the Preserve include prescribed burning, natural systems restoration, exotic species control, land security, recreational development/management and mowing.

Tampa Bay Estuarine Ecosystem – The Tampa Bay Estuarine Ecosystem project furthers the Tampa Bay Surface Water Improvement and Management (SWIM) plan. Approximately half the project consists of mangroves and salt marsh which dominate the northern project area along Bishop Harbor and the western area associated with the tidal bays of Moses Hole, Clambar Bay and Williams Bayou. The natural upland and wetland habitats within the project area provide natural water quality treatment of overland flows before reaching the receiving waters of Tampa Bay. A majority of lands within the Tampa Bay Estuarine Ecosystem project were jointly purchased with the State or local governments. Under an agreement with the State, Florida State Parks is the lead land manager for Terra Ceia Preserve State Park. Hillsborough County manages the Ekker Preserve and Schultz Preserve tracts; Pinellas County manages the Clam Bayou tract; Manatee County manages Pine Island; and the District manages the TECO, Frog Creek and Terra Ceia/Huber tracts.

Two-Mile Prairie State Forest – Two-Mile Prairie State Forest lies along the southern bank of the Withlacoochee River at the northern end of the Tsala Apopka Lake system and includes a variety of upland plant communities characterized by well-drained soils. Wetlands and surface water features include several miles of the Withlacoochee River and isolated depression marshes. The project protects natural floodplain areas along portions of the southern bank of the river, while adjoining uplands provide buffer areas to protect the river from high intensity land uses. The lands within this project were jointly purchased between the District and the State's Conservation and Recreation Lands (CARL) program. Under a management agreement with the State, the Florida Forest Service (FFS) is the lead land manager. Recreational improvements/amenities made available by the FFS include a trail network north of CR-491 for bicycling and horseback riding, canoeing and non-gas powered boating, fishing, primitive camping, picnicking, and 2.8 miles of registered "trailwalkers" trail. Land management activities consist of monitoring and coordinating with the FFS regarding their management of the tract.

Upper Hillsborough Preserve – The Upper Hillsborough project, located in Pasco and Polk counties, includes the channel of the Withlacoochee and Hillsborough rivers, including a unique hydrologic feature - the Withlacoochee River/Hillsborough River overflow. At this point, a portion of the flow of the Withlacoochee River naturally conveys to the Hillsborough River north of U.S. Highway 98. Lands within this project protect the hydraulic features of the river systems along with extensive areas of forested wetland habitats. Recreational activities/amenities available include non-potable water; approximately 9 miles of hiking trails; more than 30 miles of shared-use hiking, horseback riding and bicycling trails; primitive and equestrian camping, and fishing. Hunting is managed by the Florida Fish and Wildlife Conservation Commission. Land management activities include prescribed burning, exotic species control, public use and recreational development/maintenance, land security and natural systems restoration.

Upper Lake Marion Creek Watershed – The relatively undisturbed creek system of the Upper Lake Marion Creek Watershed flows north out of Lake Marion, joins Snell Creek and ultimately flows southeast to Lake Hatchineha. The entire Lake Marion Creek basin extends over 18,300 acres and includes portions of both the Southwest and South Florida water management districts. This district has entered into an agreement with the SFWMD to assist in the management of its lands since, due to the property's proximity to SFWMD-managed lands, the SFWMD can manage the property more cost effectively. District land management consists primarily of coordination with the SFWMD.

Upper Myakka River Watershed (Flatford Swamp) – The Upper Myakka River Watershed project is located in Manatee County and includes forested floodplain swamps and marshes along the upper portions of the Myakka River watershed. The headwater swamps function as retention and detention areas for local drainage. Wetland forests and adjoining uplands provide treatment of surface runoff. Access to the property is limited to hiking since the project lands are often flooded, which is not conducive to recreational trail development. However, the property contains narrow flatwoods roads and jeep trails that can be used for hikers during dry weather.

Upper Saddle Creek – The Upper Saddle Creek corridor is located in Polk County between the state-owned Tenoroc Fish Management Area and Lake Hancock. The property lies upstream of Lake Hancock and the upper Peace River and adjoins Saddle Creek Park which is owned by Polk County. The property is part of and provides protection to the floodplain of Saddle Creek, the major tributary to Lake Hancock. The property is in a natural state characterized by dense, existing forestation with limited encroachment of exotic species. The District and Polk County jointly acquired and co-own the project lands. Polk County is responsible for management of the property.

Weekiwachee Preserve – The Weekiwachee Preserve is located in Hernando and Pasco counties and includes several miles of the Weeki Wachee River and extensive areas of hardwood swamps and hammocks. The Weeki Wachee Swamp extends several miles along the coastal portions of Hernando County and represents a regionally important wildlife area. The riverine swamps are environmentally sensitive areas, which play an important role in the river's conveyance system and in flood and storm abatement. As they approach their outfall at the Gulf of Mexico, the Weeki Wachee and Mud rivers form a complex system of productive estuarine marshes and lowlands. Recreational activities/amenities include approximately six miles of hiking trails and six miles of shared-use hiking and bicycling trails, and fishing. The Preserve is open to vehicular access two Saturdays of every month. Hunting is managed by the Florida Fish and Wildlife Conservation Commission. Land management activities include natural systems restoration, exotic species control, land security, public use and recreational development/maintenance, prescribed burning, road maintenance and mowing. The Weeki Wachee Springs State Park is managed by Florida State Parks.

Progress of Funding, Staffing and Resource Management

The following table depicts the District's budget for funding and staffing for resource management and public use.

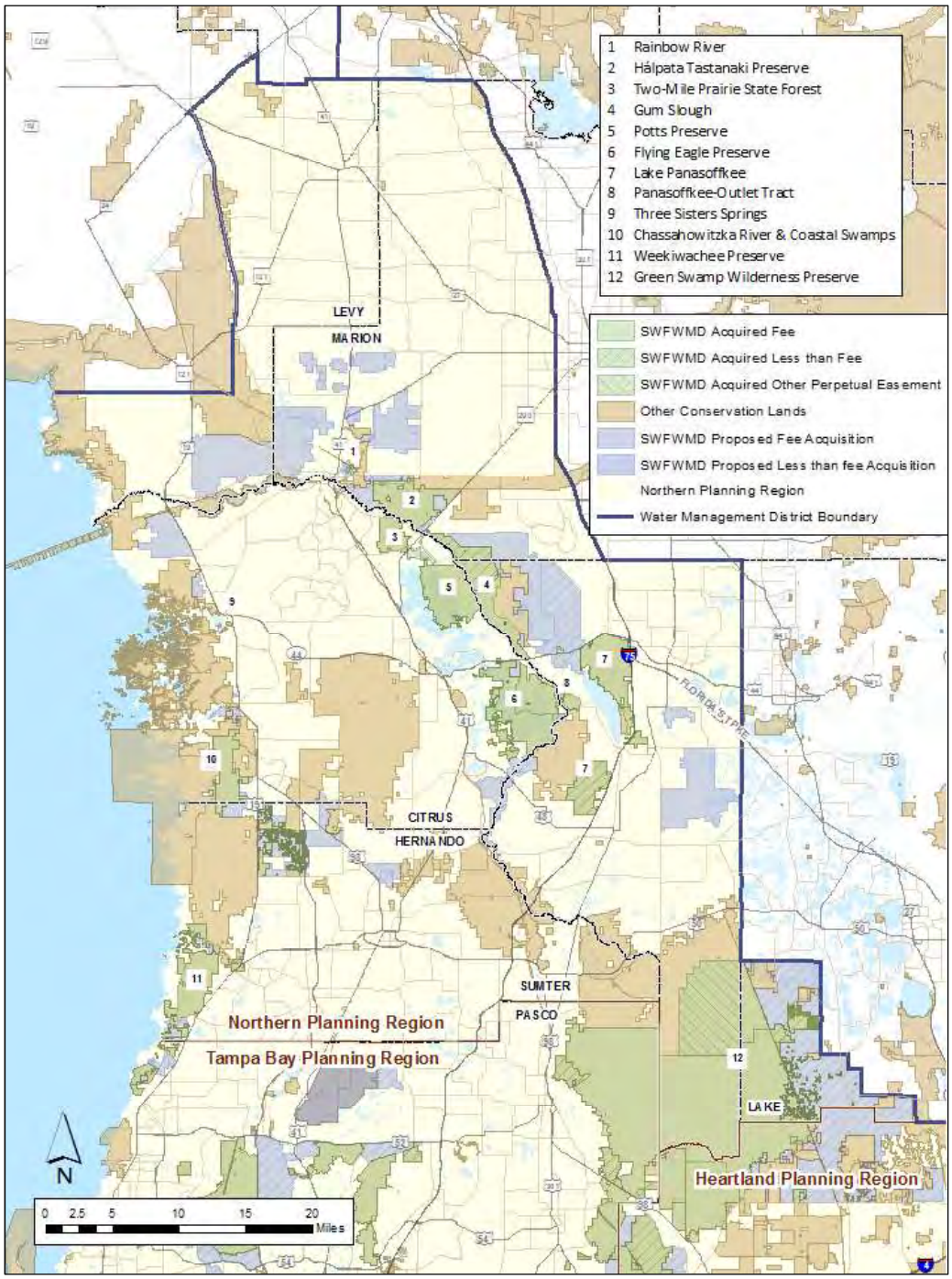
Table 7. Progress of Funding, Staffing and Resource Management

Budget Area	FY2013-2014 Budget	FY2014-2015 Budget	FY2015-2016 Budget	FY2016-2017 Budget	FY2017-2018 Budget
FTEs	37	38	38	36	35
Resource Management and Public Use	$4,035,893	$4,021,524	$5,717,499	$6,540,333	$5,680,146

Florida Forever Land Acquisition Projects

Northern Planning Region

Figure 2. Northern Planning Region Map

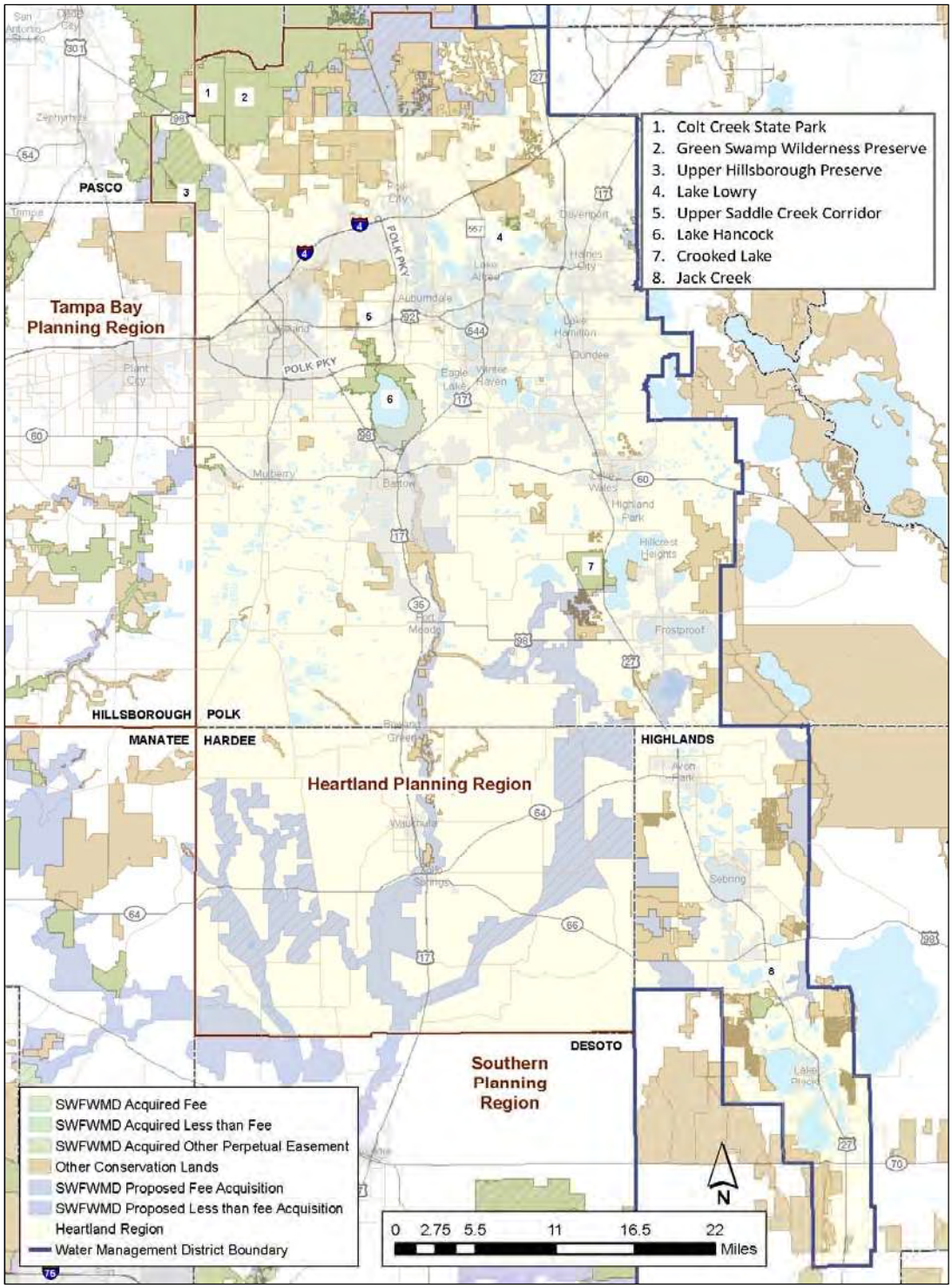


The lands eligible for acquisition within the Northern Planning Region are identified as follows:

- Approximately 92,400 acres identified for potential fee simple acquisition
- Approximately 45,600 acres identified for potential acquisition through less-than-fee techniques

Heartland Planning Region

Figure 3. Heartland Planning Region Map

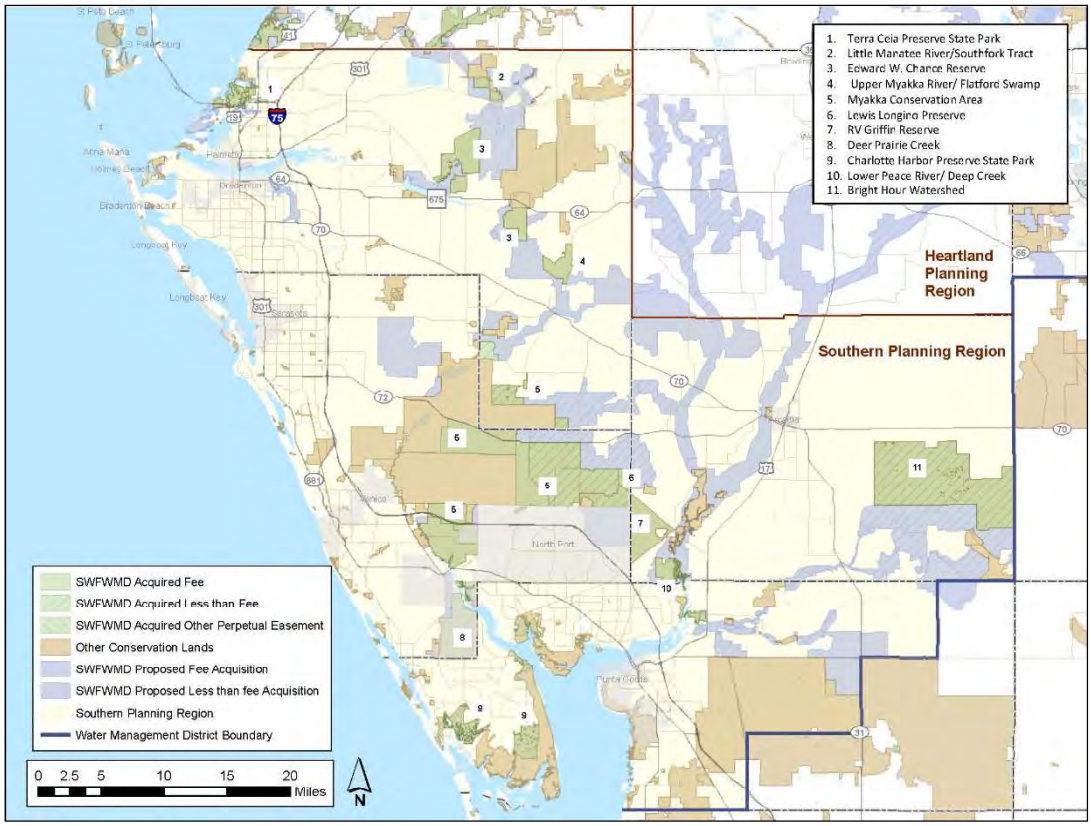


The lands eligible for acquisition within the Heartland Planning Region are identified as follows:

- Approximately 68,500 acres identified for potential fee simple acquisition
- Approximately 104,200 acres identified for potential acquisition through less-than-fee techniques

Southern Planning Region

Figure 4. Southern Planning Region Map



The lands eligible for acquisition within the Southern Planning Region are identified as follows:

- Approximately 120,000 acres identified for potential fee simple acquisition
- Approximately 57,300 acres identified for potential acquisition through less-than-fee techniques

Tampa Bay Planning Region

Figure 5. Tampa Bay Planning Region Map

The lands eligible for acquisition within the Tampa Bay Planning Region are identified as follows:

- Approximately 31,900 acres identified for potential fee simple acquisition
- Approximately 17,700 acres identified for potential acquisition through less-than-fee techniques

Consolidated Annual Report

March 1, 2018

Mitigation Donation

Annual Report 2017

Southwest Florida
Water Management District

WATERMATTERS.ORG · 1-800-423-1476

Southwest Florida Water Management District

2379 Broad Street, Brooksville, Florida 34604-6899
(352) 796-7211 or 1-800-423-1476 (FL only)
WaterMatters.org

An Equal Opportunity Employer

Bartow Office
170 Century Boulevard
Bartow, Florida 33830-7700
(863) 534-1448 or
1-800-492-7862 (FL only)

Sarasota Office
6750 Fruitville Road
Sarasota, Florida 34240-9711
(941) 377-3722 or
1-800-320-3503 (FL only)

Tampa Office
7601 U.S. 301 North (Fort King Highway)
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)

January 2, 2018

The Honorable Rick Scott
Governor of Florida
Plaza Level 05, The Capitol
400 South Monroe Street
Tallahassee, Florida 32399-0001

Subject: Annual Report on Cash Payments as Mitigation

Dear Governor Scott:

This letter is written pursuant to Section 373.414(1)(b)(2), Florida Statutes, which requires that each water management district report annually to the Executive Office of the Governor "all cash donations accepted under subparagraph 1 during the preceding calendar year for wetland mitigation purposes."

During the reporting period, the Southwest Florida Water Management District received no cash payments as mitigation, pursuant to 373.414(1)(b), Florida, Statutes.

Sincerely,

Brian J. Armstrong, P.G.
Executive Director

cc: Secretary Noah Valenstein, FDEP

Strategic Plan 2018–2022

Updated February 2018

Southwest Florida
Water Management District

MESSAGE FROM THE CHAIR

Plan directs resources to evolving challenges

The Southwest Florida Water Management District serves its stakeholders, the citizens of the 16-county west-central Florida region, by managing and protecting the region's water resources to ensure their continued availability while maximizing the benefits to the public.

This Strategic Plan identifies who we are, what we do, how we do it, and looks out over a five-year planning horizon to highlight our priorities and determine where we should be focusing our resources to maximize those benefits to the public and the environment.

Water resource challenges, like our water resources, are constantly evolving. That's why we update our plan each year. Some of the significant changes in this year's plan were driven by the results of an August 2017 Governing Board workshop where Board members defined some emerging water resource issues involving springs, reclaimed water and flooding.

Following the leadership of Gov. Rick Scott and legislators on environmental issues, the District had previously identified improving our first-magnitude springs as a priority in our Northern region. This year we added conversion of septic systems to sewer collection and treatment systems as a critical action in the restoration of springs. The Board prioritized combining District funds with state and local funds in an efficient manner that incentivizes these projects. The Board also identified the need to protect the District's investment by ensuring controls are put in place to prevent additional pollution from new septic systems.

The District has long been a leader in the beneficial reuse of reclaimed water. Currently, we are reusing about 42 percent of the available wastewater flows compared to a national average of 7 percent. However, our ambitious goal is to beneficially reuse 75 percent of the available reclaimed water. To help reach that goal, we are prioritizing funding for direct and indirect potable reuse projects implemented by regional entities.

Randall S. Maggard
Governing Board Chair

Flood protection spurred the creation of the District in 1961 and regional flood protection continues to be one of our primary areas of responsibility. A robust watershed plan development program, combined with flooding in recent years, has led to an increased number of stormwater management project funding requests. These projects are expected to be mainly focused in the Tampa Bay area, but may increase in other regions over time. To address these needs, we have created a new flood protection priority for the Tampa Bay planning region.

The District's ability to fund these projects and many others is due to our responsible stewardship of taxpayer dollars. The District is continually looking for ways to reduce costs, improve effectiveness and maximize the taxpayer investment in our mission. We will continue to use developing technology to deliver a better value to our citizens by increasing efficiencies in all areas.

Our innovative Cooperative Funding Initiative (CFI) has been sharing the costs of water resource projects since 1988, with nearly $1.5 billion in District investments matched with similar contributions from funding partners for a total of nearly $3 billion.

At our workshop in August 2017, the consensus of the Board was support for continuing a strong project spending program. Total project spending of $70 million to $90 million, to include CFI spending of $50 million to $60 million, is sustainable while continuing to roll back millage each year to not add to the tax burden of residents. Board consensus also favored continuing the District's longstanding policy of no accumulation of debt.

I'm a native Floridian, born in Zephyrhills. My kids live here. My grandkids, hopefully, will live here. I want them to enjoy Florida the way I did. They should be able to experience a spring, or swim in a creek or river. And they should have the comfort of knowing that a clean, sustainable water supply is available to them and to their kids and grandkids. That's why I volunteered to serve on the District Governing Board.

Over my years associated with the District, I've gained a healthy respect for its employees and for what they have accomplished. The Tampa Bay region has one of the most diversified water supply systems in the world. The District is a national leader in recycling water. The District's Tampa Bypass Canal is capable of moving up to 17 billion gallons of water a day to provide flood protection to the cities of Tampa and Temple Terrace and was successfully used for this purpose prior to and during Hurricane Irma. Through our SWIM Program, we have restored thousands of acres of environmentally sensitive lands.

The District has a history of innovation and success, and employs the best and brightest minds to meet future challenges. That talent and expertise will be needed. The region faces many water resource challenges as our communities continue to grow and the water resources remain limited.

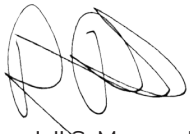
Working with our partners, much has been accomplished recently, including:

- The Lake Hancock Lake Level Modification project is complete and operational, providing flows to the

upper Peace River during low flow periods;
- The Polk Regional Water Cooperative was created to allow the county and local governments to share the costs of developing necessary water supplies for future needs;
- A multi-agency effort identified potential long-term water supply solutions as part of the Central Florida Water Initiative;
- An inclusive, multi-agency process developed plans to protect and restore the first-magnitude springs in the northern coastal area of the District;
- Our innovative FARMS program, a cost-share initiative with farmers that helps recycle and conserve water, has saved more than 27 million gallons a day. The program targets areas to reduce groundwater usage and improve water quality, including in our first-magnitude springsheds.

While much has been done, many water resource challenges remain. Funded primarily through property taxes, the District is responsible to the taxpayers to protect their investment. Increasing our efficiency and lowering operational expenses have allowed the District to reduce its millage by 48 percent over the last eight fiscal years to lessen the burden on taxpayers. Funds saved through these efficiency measures are used to fund projects that benefit the people and environment of west-central Florida.

We will continue to work hard and to work smart to ensure the Florida that I and other Floridians have been fortunate enough to enjoy will be there for future generations.
Sincerely,



Randall S. Maggard
Governing Board Chair

Governing Board

Randall S. Maggard
Chair
Pasco County

James G. Murphy
Polk County

Jeffrey M. Adams
Vice Chair
Pinellas County

Kelly S. Rice
Citrus, Lake, Levy, Sumter Counties

Bryan K. Beswick
Secretary
DeSoto, Hardee, Highlands Counties

Joel Schleicher
Charlotte, Sarasota Counties

Ed Armstrong
Treasurer
Pinellas County

Rebecca Smith
Hillsborough, Pinellas Counties

H. Paul Senft, Jr.
Former Chair
Polk County

Mark Taylor
Hernando, Marion Counties

Michael A. Babb
Former Chair
Hillsborough County

Michelle Williamson
Hillsborough County

John Henslick
Manatee County

The Governing Board establishes policies for the District. Board members are unpaid citizen volunteers appointed by the Governor and confirmed by the Florida Senate.

Table of Contents

OVERVIEW

The Southwest Florida Water Management District (District) is a science-based organization responsible for managing and protecting water resources in west-central Florida. The District's job is to ensure there are adequate water supplies to meet the needs of current and future users while protecting and restoring water and related natural resources. (See Mission Statement.)

The District encompasses all or part of 16 counties, from Levy County in the north to Charlotte County in the south. It extends from the Gulf of Mexico east to the highlands of central Florida. The District contains 98 local governments spread over approximately 10,000 square miles, with a total population estimated to be 5.1 million in 2017. For planning purposes, the District is divided into four regions: Northern, Tampa Bay, Heartland and Southern. *(See District Planning Regions map.)*

Mission Statement
To protect water resources, minimize flood risks, and ensure the public's water needs are met.

GOVERNING BOARD

A 13-member board governs the District. The Governing Board establishes policies and sets the budget for the District. Appointed by the Governor and confirmed by the Senate, Governing Board members are unpaid volunteers representing varied backgrounds and interests. Board members, who must live in the District, serve four-year terms.

BUDGET

The District's primary funding source is ad valorem taxes, although revenues are also derived from state and federal appropriations, permit fees, interest earnings and other sources. The taxing capabilities of the District are established by the Legislature within the limits set by the Florida Constitution. The limit for the District is one mill, or one dollar per thousand dollars of assessed value. The Governing Board millage rate for fiscal year 2017-18 is 0.3131 mill. More information about budgeting is included in this document's Core Business Practices section.

CORE MISSION

Florida Statutes, primarily Chapter 373, authorize the District to direct a range of initiatives, programs and actions. These responsibilities can be grouped under four general areas which form the District's core mission: water supply, water quality, natural systems and flood protection. The District has established a goal for each of these areas of responsibility:

Water Supply Goal: Ensure an adequate supply of water to provide for all existing and future reasonable and beneficial uses while protecting and maintaining water resources and related natural systems.

Water Quality Goal: Protect and improve water quality to sustain the water, environment, economy and quality of life.

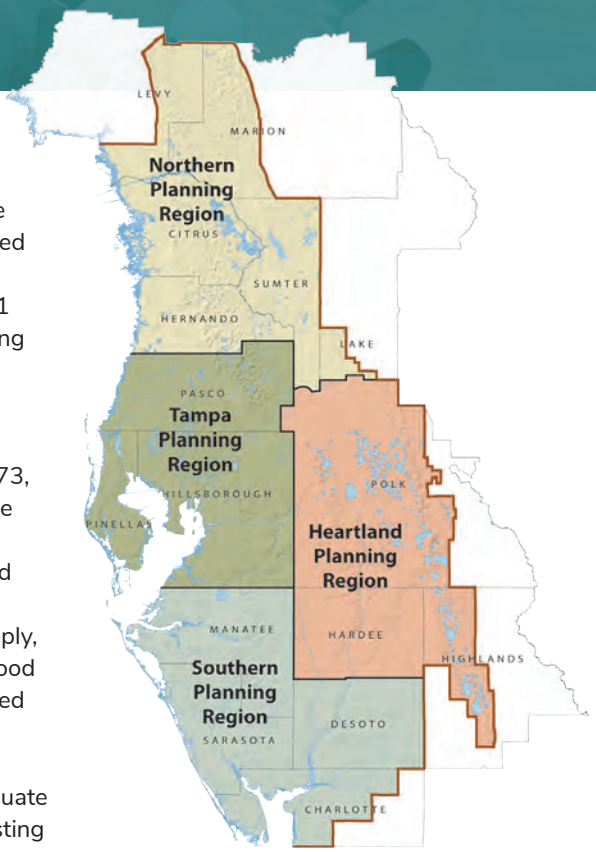
Natural Systems Goal: Preserve, protect and restore natural systems to support their natural hydrologic and ecologic functions.

Flood Protection Goal: Minimize flood damage to protect people, property, infrastructure and investment.

STRATEGIC INITIATIVES

The District is implementing a wide array of programs and projects to meet these four goals. These activities are grouped under 11 Strategic Initiatives:

- Regional Water Supply Planning
- Alternative Water Supplies
- Reclaimed Water
- Conservation
- Assessment and Planning
- Water Quality Maintenance and Improvement



- Minimum Flows and Levels (MFLs) Establishment and Recovery
- Conservation and Restoration
- Floodplain Management
- Flood Protection Maintenance and Improvement
- Emergency Flood Response

REGIONAL PRIORITIES

While the Strategic Initiatives identify activities implemented throughout the District, the water resource needs vary from one planning region to another. The top water resource priorities for each region, along with measurable objectives, are identified in the Regional Priorities section of this document.

CORE BUSINESS PROCESSES

In addition to adhering to its adopted values, the District must excel in seven core business processes to successfully achieve its Strategic Initiatives:

- Water Resources Planning
- Innovative Projects
- Regulation
- Long-Range Financial Planning
- Land and Structure Operations
- Knowledge Management
- Public Engagement

STRATEGIC INITIATIVES
WATER SUPPLY

1. Regional Water Supply Planning

Goal Statement: Identify, communicate and promote consensus on the strategies and resources necessary to meet future reasonable and beneficial water supply needs.

The District's regional water supply planning effort provides the framework for future water supply management decisions within the District, and is a statutory requirement where current water sources are not adequate to supply existing and future uses while sustaining natural resources (F.S., 373.709(1)). This is a collaborative, transparent effort involving local governments, utilities, the agricultural community, business representatives, environmental organizations and other stakeholders.

STRATEGIES

- Develop accurate and reliable demand projections
- Identify sufficient regional water supply sources to meet projected demands
- Encourage the development and use of regional water supply authorities to plan and coordinate water supply solutions
- Incorporate adaptive management processes in water supply planning
- Coordinate with other water management districts on water supply and regulation approaches
- Proactively coordinate with water supply utilities
- Demonstrate the District's financial commitment to assist in the development of regional water supply needs

2. Alternative Water Supplies

Goal Statement: Increase development of alternative sources of water to ensure groundwater and surface water sustainability.

Alternative water supply (AWS) refers to any nontraditional source of water that reduces the region's dependency on fresh groundwater. From 1990 through September 2017, the District has helped to develop approximately 363 million gallons daily (mgd) of alternative water supplies, including reuse and conservation benefits and new potable water sources.

STRATEGIES

- Develop alternative water supply sources that include surface water capture, desalination and brackish groundwater systems
- Continue to promote partnerships with agriculture through District programs such as the Facilitating Agricultural Resource Management Systems (FARMS)
- Partner with regional entities to provide alternative water supplies
- Continue to leverage District funds to facilitate the development of alternative water supplies
- Continue to support research and development of aquifer storage and recovery technology
- Promote conjunctive use of surface and groundwater resources through regulation and funding incentives

3. Reclaimed Water

Goal Statement: Maximize beneficial use of reclaimed water to reduce demand on traditional water supplies.

Reclaimed water is wastewater that has received at least secondary treatment and disinfection and is used for a beneficial purpose, such as irrigation, manufacturing processes or power generation. By offsetting demand for groundwater and surface water, this alternative water supply reduces stress on environmental systems, provides economic benefits by delaying costly water system expansions and reduces the need to discharge wastewater effluent to surface waters. More than 159 mgd of reclaimed water is being beneficially reused in the District, accounting for more than 13 percent of overall water use. In addition, the District's Governing Board recently identified indirect/direct potable reuse as a priority for the District to achieve its goal of 75 percent reuse of available wastewater.

STRATEGIES

- Increase availability by increasing storage capacity
- Increase availability by promoting interconnects between reclaimed water utilities
- Leverage District funds to maximize efficient and beneficial use of reclaimed water
- Improve efficiency through measures such as metering and volume-based pricing
- Continue to support reclaimed water research, monitoring and public education
- Partner with cooperators for the development of indirect/direct potable reuse projects, with priority for regional entities
- Promote the beneficial use of reclaimed water and the offset of traditional water supplies through the existing regulatory framework
- Promote the use of reclaimed water for recharge and environmental enhancement projects

4. Conservation

Goal Statement: Enhance efficiencies in all water-use sectors to ensure beneficial use.

Conservation is achieved through education, financial incentives and various regulatory and non-regulatory programs. Per capita water usage in the District has regularly ranked as the lowest in the state.

STRATEGIES

- Promote water conservation through public engagement programs
- Support research and implementation of conservation techniques and practices
- Promote water-conserving rate structures
- Utilize financial incentives to further encourage effective conservation practices
- Utilize regulatory programs to establish effective conservation practices
- Continue to promote partnerships with agriculture through District programs such as the FARMS Program

STRATEGIC INITIATIVES
WATER QUALITY

1. Assessment and Planning

Goal Statement: Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.

Those who manage Florida's water resources must have access to accurate and timely data. Good decisions require reliable information.

STRATEGIES

- Continue to develop and maintain long-term water quality monitoring networks to collect, analyze and distribute accurate water quality information
  - Coastal Groundwater Quality and Water Use Permit Monitoring Networks
  - Springs and Aquifer Nutrient Monitoring Networks
  - Surface Water Quality Monitoring Networks
- Continue to support the District's internal data governance process
- Continue to promote partnerships through District water quality programs

2. Maintenance and Improvement

Goal Statement: Develop and implement programs, projects and regulations to maintain and improve water quality.

The District develops and implements projects, programs and regulations to maintain and improve water quality. Examples of these efforts include partnerships for best management practices (BMPs) implementation such as the FARMS program, focused on the agriculture community, and the Watershed Management Program (WMP), addressing watershed improvements; and the Surface Water Improvement and Management (SWIM) and Springs initiatives programs that implement nitrogen removal and other water quality improvement projects.

The District also acquires and manages land for water resources conservation/protection purposes through its land resources program and regulates stormwater management through the environmental resource permitting process. Additionally, data and information are shared with counties, cities and the state for projects to improve water quality.

STRATEGIES

- Use cooperative funding to support local government efforts to improve District priority water bodies
- Continue to review and track DEP Total Maximum Daily Load (TMDL) and Basin Management Action Plans (BMAP) processes for District priority water bodies
- Promote Florida-Friendly Landscaping™ principles and other behaviors that protect water quality
- Participate in the development and implementation of the statewide stormwater management criteria to enhance an active environmental resource permitting (ERP) program
- Utilize regulatory programs to promote water quality protection and improvement
- Continue to promote partnerships through District water quality programs such as the SWIM and the FARMS programs
- Support cooperative funding and implementation of prioritized septic and package plant retrofit projects within the Northern region

Rainbow River cleanup in Dunnellon

Three Sisters Springs in Crystal River

1 MFL Establishment and Monitoring

Goal Statement: Establish and monitor MFLs, and, where necessary, develop and implement recovery plans to prevent significant harm and reestablish the natural ecosystem.

Minimum flows and levels for aquifers, surface watercourses, and other surface water bodies identify the limit at which withdrawals would be significantly harmful to the water resources or ecology of the area. Rivers, streams and springs require minimum flows, while minimum levels are set for lakes, wetlands and aquifers. MFLs are used for permitting or planning decisions concerning how much water may be safely withdrawn from a water body.

Through fiscal year 2017, the District has set 203 MFLs on rivers, lakes, aquifers and wetlands. The District's process for establishing MFLs includes independent scientific peer review and opportunities for interested stakeholders to participate in public review. The District also assesses potential water supply/resource problems and evaluates water use permit applications to ensure no violation of established MFLs occurs. In addition, water bodies with established MFLs are monitored and assessed. These assessments include determining the need for recovery, implementing strategies to prevent flows or levels from falling below established MFLs and assessing the recovery of water bodies where significant harm has occurred. To date, the District has developed three regional recovery strategies associated with Water Use Caution Areas (Northern Tampa Bay, Southern and Dover/Plant City) and two water body-specific plans.

STRATEGIES

- Update MFLs priority list and schedule annually
- Establish water body-specific MFLs through:
  - Data collection
  - Data analysis and reporting
  - Independent scientific peer review and public review
  - Rule adoption
- Continue to incorporate MFLs in District water use permit application review processes and compliance monitoring
- Monitor and report hydrologic conditions to support status assessments for water bodies with established MFLs
- Continue to review and refine scientific methodologies used in establishing MFLs
- Develop, adopt and implement recovery and prevention strategies
- Incorporate MFLs recovery and prevention strategies into the Regional Water Supply Plan development process

2.Conservation and Restoration

Goal Statement: Restoration and maintenance of natural ecosystem for the benefit of water and water-related resources.

The Conservation and Restoration Strategic Initiative preserves, protects and restores natural systems to support natural hydrologic and ecologic functions. The major components of this initiative include land acquisition and management, ecosystem monitoring and restoration, education and regulation. To date 40,582 acres of habitat have been restored through District programs and partnerships with state and local governments.

Acquisition and management of land are critical to the District's conservation and restoration objectives. Once acquired, altered land is restored, if necessary, and managed to maintain ecological and hydrological functions. The District monitors its lands to ensure continued compliance with its mission and initiatives.

Restoration initiatives, such as the SWIM Program, are overseen by the District to restore natural systems associated with priority water bodies.

The District also regularly tracks land and water resource alterations through its aerial land use/land cover, wetland and seagrass mapping efforts. Through reviews such as local government plan amendments and large-scale development proposals, Florida Coastal Management applications and related activities, staff is able to offer feedback to better link land and water resources. In addition, the District's ERP program helps protect water resources.

STRATEGIES

- Evaluate acquisition opportunities, placing priority on water resource benefits, inholdings, additions, core conservation areas, realistic landowner expectations and leveraging partnership dollars
- Promote innovative restoration projects and partnerships
- Regulate to avoid impacts or minimize and mitigate unavoidable impacts
- Partner to continue wetland, lake and river monitoring and analysis
- Provide technical assistance to state, regional and local governments for linking land and water
- Utilize management tools to enhance maintenance of conservation lands

STRATEGIC INITIATIVES
FLOOD PROTECTION

1. Floodplain Management

Goal Statement: Collect and analyze data to determine local and regional floodplain information, flood protection status and trends to support floodplain management decisions and initiatives.

The District's Watershed Management Program (WMP) identifies, prioritizes and addresses flood-related water resource issues within a watershed. Information developed through the WMP is used by local governments, the District, and state and federal governments in regulatory and advisory floodplain management programs.

STRATEGIES

- Implement the WMP, collect and analyze data and develop and distribute accurate floodplain information
- Continue to promote partnerships at the local, state and federal level
- Increase public awareness of floodplains and flood risk
- Provide system-based data to support the operation of District flood control and water conservation structures
- Document levels after flood events to ensure up-to-date modeling and historic records

2. Maintenance and Improvement

Goal Statement: Develop and implement programs, projects and regulations to maintain and improve flood protection, and operate District flood control and conservation structures to minimize flood damage while preserving the water resource.

The District's ERP program uses WMP information and regulations to protect floodplain and historic basin storage and ensure that new development does not increase flood levels or the rate of stormwater runoff onto neighboring properties.

Strategic property acquisition allows land to fulfill natural functions of storing and accommodating excess water and reduces the risk of flood damage by preserving floodplains. The District also maintains and operates four major canal and conveyance systems and 81 flood control and water conservation structures as an important flood protection strategy. Extensive areas of the District depend upon the maintenance and operation of these facilities.

The District's WMP identifies flood risk and efficient alternatives to reduce the risk of flood damages. The District's Cooperative Funding Initiative encourages implementation of selected intermediate and regional system improvement projects to reduce flood risk. Implementation of local system improvements is primarily the responsibility of the local government.

STRATEGIES

- Implement the ERP program using WMP floodplain information to maintain current levels of flood protection
- Identify floodplain management and flood protection value associated with land acquisition opportunities
- Use cooperative funding to support local government efforts to reduce the risk of flood damages by improving intermediate and regional flood protection systems
- Operate, maintain and upgrade District flood control and water conservation structures and associated facilities

3. Emergency Flood Response

Goal Statement: Provide effective and efficient assistance to state and local governments and the public to minimize flood damage during and after major storm events, including operation of District flood control and water conservation structures.

Through its emergency flood response initiative, the District prepares for, responds to, recovers from and mitigates the impacts of critical flooding incidents. To ensure adequate preparation, the District has developed an emergency operations program and maintains a Comprehensive Emergency Management Plan (CEMP), which provides guidelines for pre-incident preparation, post-incident response and recovery, deployment and annual exercises. The District's Emergency Operations Center (EOC) and Emergency Operations Organization (EOO) are critical to incident response.

All water management districts are members of the State Emergency Response Team and serve as support agencies to the state. The District provides emergency assistance to local governments and the public. District regulatory flood investigation teams assist local governments with emergency construction authorizations, and help to determine and implement solutions to flooding problems for major conveyance systems.

The enhancement and modernization of District water management facilities includes the automation and upgrading of mission-critical water conservation and flood control structures with remote operation and equipping structures with digital video monitoring.

STRATEGIES

- Continue to promote an effective and efficient incident management system
- Establish redundant control systems for all mission-critical infrastructure
- Use technology to the fullest extent to ensure optimal response capabilities
- Train staff in NIMS/ICS structure
- Exercise the District's CEMP, high hazard structure Emergency Action Plans, and Flood Event Guidelines
- Help to provide emergency assistance to local governments and agencies

REGIONAL PRIORITIES AND OBJECTIVES
NORTHERN REGION — SPRINGS

PRIORITY:
Improve the Rainbow River, Crystal River/Kings Bay, Homosassa River, Chassahowitzka River and Weeki Wachee River

OBJECTIVES:
- Implement water quality and natural systems projects identified in the five SWIM plans
- Assist with septic to sewer conversion within the five first-magnitude spring areas
- Monitor status and trends associated with targets in each springs plan to assess the health of the spring systems
- Continue support of the Springs Coast Steering Committee (SCSC)

NARRATIVE:
Among the most precious water resources in the District are the more than 150 documented springs, and the rivers, bays, and estuaries that are fed by them. The five largest spring groups within the District are concentrated in the Northern region along the Florida Springs Coast. These five first-magnitude (flow rates of 100 cubic feet per second or greater) groups form the headwaters of the Rainbow River, Kings Bay/Crystal River, Homosassa River, Chassahowitzka River and Weeki Wachee River. All five systems are listed as District SWIM priority waterbodies, and by the state as Outstanding Florida Waterways and Outstanding Florida Springs.

The Crystal River/Kings Bay, Homosassa River, Chassahowitzka River and Weeki Wachee River flow directly into the Gulf of Mexico, which is home to one of the largest seagrass habitats in the world. Along with seagrass, the nearshore coastal waters of the Florida Springs Coast are home to many species of attached algae, sponges, corals and hard bottom habitat supporting numerous ecologically and economically important species including bay scallop, grouper, tarpon, manatee and many others.

The rivers, bays and springs have experienced ecological changes caused by both natural and human impacts. Issues facing these coastal resources include sea-level rise, reduced water clarity, altered aquatic vegetation, nutrient enrichment and decreased flows.

In 2014, the District together with local, regional and state partners formed the SCSC. The SCSC's mission is to build consensus and partnerships to improve and manage each of the five first-magnitude spring systems through effective development and implementation of SWIM plans. Led by District staff, all first-magnitude spring groups now have approved SWIM plans.

Each SWIM plan is a road map, a living document with adaptive management at its core. These plans identify management actions, projects that address the issues facing each system, and specific quantifiable objectives to assess overall progress and help guide the SCSC. In an August 2017 workshop, the District's Governing Board prioritized combining District funds with state and local funds for projects that would connect domestic septic systems to central sewer to benefit springs. The Board also identified the need to protect the District's investment by ensuring controls are in place to prevent additional pollution from new septic systems.

Weeki Wachee River in Hernando County

In addition to the management plan development and implementation, the FARMS program is working with producers to implement BMPs to reduce groundwater use and nutrient loading in springsheds. To date, the Governing Board has approved 16 projects within the region, with an estimated offset of 0.5 mgd and an estimated nitrogen load reduction of 1,400 lbs per year.

Quantifiable objectives are established for each first-magnitude spring system for the following surface water quality and biological indicators.

Chassahowitzka River
- Water clarity
- Nitrate concentration
- Minimum flow for the river system
- Coverage of desirable submerged aquatic vegetation
- Coverage of invasive aquatic vegetation

Crystal River/Kings Bay
- Water clarity
- Nitrate concentration
- Phosphorus
- Chlorophyll
- Coverage of desirable and invasive aquatic vegetation and natural shoreline
- Enhancement of disturbed shoreline
- Minimum flows for the springs and river

Homosassa River
- Water clarity
- Minimum flow for the river system
- Coverage of desirable benthic habitat
- Coverage of invasive aquatic vegetation
- No net loss of shoreline in natural condition

Rainbow River
- Water clarity
- Nitrate concentration
- Submerged aquatic vegetation coverage
- Minimum flows for the springs and river

Weeki Wachee River
- Water clarity
- Nitrate concentration
- Minimum flow for the river
- Coverage of desirable submerged aquatic vegetation
- Coverage of invasive aquatic vegetation

REGIONAL PRIORITIES AND OBJECTIVES
NORTHERN REGION — WATER SUPPLY

PRIORITY:
Ensure long-term sustainable water supply

OBJECTIVES:
- Increase conservation
  - Achieve and maintain 150-gallon daily compliance per capita with all public supply utilities by December 31, 2019
  - Reduce 2011 regional average per capita water use by 10 percent by 2020
  - Achieve 75 percent utilization of all wastewater flows and a 75 percent resource benefit by 2040. As of 2015, the Northern region had 22 mgd of wastewater flow and 14 mgd of reuse for a utilization rate of 66 percent.
  - Improve the quality of water delivered to rapid infiltration basins (RIBs) in springsheds
  - Utilize high quality reclaimed water for aquifer recharge to support groundwater resources
- Partner with the Withlacoochee Regional Water Supply Authority to promote regional water supply planning and development

NARRATIVE:
The District's 2015 Regional Water Supply Plan shows that demand for water in the Northern region through 2035 and beyond could be met with fresh groundwater if the region's considerable potential for reuse and conservation were realized.

Public supply use, which accounts for about 50 percent of the water use in the Northern region, has significant potential for water savings. In 2011, compliance per capita public supply water use in the Northern region averaged 139 gallons per person per day (gpcd). Usage declined to 124 gpcd in 2015, representing an 11 percent reduction from 2011; however, this is still significantly higher than the other three planning regions. In 2015, there were two utilities in the Northern region with compliance per capita figures higher than 150 gpcd, which will be the maximum allowed starting on December 31, 2019.

The District's goals are to ensure that all utilities fall below the maximum compliance per capita usage and to further reduce the regional average per capita usage by 10 percent by 2020. The District's plan to assist public supply utilities is to minimize the need for additional groundwater supplies by maximizing the use of available reclaimed water and implementing comprehensive water conservation measures and best management practices.

The District promotes regional approaches to water supply planning and development. The benefits of regional systems include economies of scale, better ability to manage environmental impacts, improved system reliability, operational flexibility and emergency backup capability. Larger, regional systems are also able to take advantage of conjunctive use, wherein both groundwater and alternative sources are available and can be managed to mimic natural hydrologic cycles.

In the Northern region, the District is partnering with the Withlacoochee Regional Water Supply Authority to promote regional water supply planning and development. This most recently includes cooperatively funding regional water conservation efforts and an update to the Authority's Master Water Supply Plan.

REGIONAL PRIORITIES AND OBJECTIVES
TAMPA BAY REGION — MFL RECOVERY

PRIORITY:
Implement MFLs Recovery Strategies

OBJECTIVES:
- Northern Tampa Bay Water Use Caution Area (NTBWUCA) Recovery Strategy
  - Recover MFLs for rivers, lakes, wetlands, and other water bodies
  - By 2018, complete an assessment to determine whether Tampa Bay Water's reduction to 90 mgd of groundwater withdrawal from the Central Wellfield System provides necessary recovery for impacted rivers, lakes and wetlands
  - Complete the construction of Morris Bridge Sink projects for the lower Hillsborough River recovery
  - Conduct a second five-year assessment of the adopted MFLs for the lower Hillsborough River
  - Achieve 75 percent utilization of all wastewater flows and a 75 percent resource benefit by 2040. As of 2015, the Tampa Bay Region had 251 mgd of wastewater flow and 92 mgd of reuse for a utilization rate of 36 percent
  - Increase reuse for recharge and MFLs
  - Reduce the 2011 regional average per capita water use by 2.5 percent by 2020
- Dover/Plant City Water Use Caution Area (DPCWUCA) Recovery Strategy
  - Ensure compliance with the DPCWUCA area minimum aquifer level of 10 ft NGVD for the Upper Floridan aquifer at the District's DV-1 Suwannee monitor well
  - Reduce January 2010 groundwater withdrawal quantities for frost/freeze protection by 20 percent by January 2020
  - Establish automatic flow meter reporting equipment on 960 agricultural withdrawal points
- SWUCA Recovery Strategy
  - Achieve a net reduction up to 50 mgd in groundwater in the SWUCA by 2025, with 40 mgd achieved through FARMS
  - Recover the SWUCA saltwater intrusion minimum aquifer level of 13.1 ft for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the Most Impacted Area (MIA)
  - Ensure that there are sufficient water supplies for all existing and projected reasonable-beneficial uses

Narrative:
The District sets MFLs on priority water bodies. An MFL is the limit at which withdrawals would be significantly harmful to the water resources or ecology of the area. If the existing flow or level of a water body is below, or is projected to fall below, the applicable minimum flow or level within 20 years, a recovery or prevention strategy must be implemented.

Additionally, the District can designate a water use caution area (WUCA) when the Governing Board determines that regional action is necessary to address cumulative water withdrawals which are causing or may cause adverse impacts to the water and related natural resources or the public interest. WUCA rules enhance the protection and recovery of the water resources.

In the Tampa Bay region, the District has identified recovery strategies associated with MFLs in three WUCAs: Northern Tampa Bay, Dover/Plant City and Southern.

The Northern Tampa Bay Water Use Caution Area (NTBWUCA) was established to address adverse impacts to water resources from groundwater pumping. The NTBWUCA encompasses all of Pinellas and Pasco counties, and those portions of Hillsborough County north of Highway 60. The first phase of the District's recovery strategy for restoring water resources called for reducing pumping from Tampa Bay Water's regional wellfields and providing financial incentives for construction of alternative water supply projects. In the NTBWUCA, these efforts have produced to date 140 mgd of new alternative water sources and allowed for groundwater withdrawals to be reduced by more than 60 mgd.

Significant hydrologic recovery has resulted from these reductions. However, more information is needed to fully evaluate the effects of the reductions on MFLs recovery. Therefore, the District initiated a second phase of the recovery strategy through adoption of a comprehensive plan that includes continued monitoring and evaluation of environmental mitigation for withdrawal impacts and continued water conservation activities by Tampa Bay Water's member governments.

One of the water resources impacted in the NTBWUCA is the Hillsborough River. The recovery strategy for the lower Hillsborough River calls for the augmentation of the river from a variety of sources, including Sulphur Springs, Blue Sink, Morris Bridge Sink and the Tampa Bypass Canal. As summarized in the first of three required five-year assessments for recovery of the lower Hillsborough River, completed in March 2015, the District has, since December 2007, transferred 11 cubic feet per second of water from the Tampa Bypass Canal to the Hillsborough River Reservoir

Weather station in Hillsborough County

and pumped 75 percent of this volume over the City of Tampa dam when necessary. To further support recovery of the lower river, the City of Tampa has been supplying up to 18 cubic feet per second of flow from Sulphur Springs to the base of the City of Tampa dam. A project to develop additional augmentation quantities for the lower Hillsborough River from Blue Sink was completed in September 2017. The District is also helping fund the City of Tampa's augmentation project to evaluate the use of reclaimed water to augment water supplies. A recharge/recovery system is being investigated to store and recover reclaimed water in the Floridan aquifer system for subsequent delivery to the Hillsborough River Reservoir.

The Dover/Plant City Water Use Caution Area (DPCWUCA) was established to address impacts from groundwater pumping for frost/freeze protection. To protect crops from freeze events, a best management practice for many farmers with agricultural commodities including strawberries, blueberries, citrus and nurseries is to pump groundwater for irrigation when temperatures drop to near freezing. Substantial irrigation use during these times strains the aquifer system which lowers groundwater levels and can also impact residential wells and contribute to sinkhole development. During the historic January 2010 11-day freeze event, many residential wells were impacted and sinkholes were reported. Moreover, significant freeze events resulting in well failures and sinkholes have occurred three times over the past 10 years. As a result, the District has developed and adopted a comprehensive management plan to significantly reduce and monitor in real-time groundwater pumping during future freeze events that may cause impacts to existing legal users.

The recovery strategy's objective is to reduce groundwater withdrawals used for frost/freeze protection by 20 percent from January 2010 withdrawal quantities by January 2020. This reduction is intended to lessen the potential that drawdown during a future frost/freeze event would lower the aquifer level at District Well DV-1 Suwannee below 10 feet NGVD (1929). Non-regulatory mechanisms include assistance in offsetting groundwater withdrawals for frost/freeze protection through FARMS. Tailwater recovery, chemical protectants, row covers and wind machines are examples of BMPs eligible for cost-share within the program.

The strategy's regulatory measures address groundwater withdrawal impacts, alternative water supplies, frost/freeze protection methods and resource recovery. In combination, these rules along with the non-regulatory mechanisms are intended to result in recovery of the minimum aquifer level.

Progress toward achieving the minimum aquifer level will be continuously evaluated. This evaluation will include an assessment of the reduction in groundwater withdrawals used for frost/freeze protection in the DPCWUCA and the resulting reduced impact on the minimum aquifer level. If by January 2020 a 20 percent reduction in groundwater withdrawals used for frost/freeze protection or the minimum aquifer level has not been achieved, the recovery strategy will be reassessed.

Southern Hillsborough County is included in the SWUCA. In the eight-county SWUCA, which encompasses approximately 5,100 square miles, depressed aquifer levels have caused saltwater intrusion along the coast, contributed to reduced flows in the upper Peace River and lowered lake levels in areas of Polk and Highlands counties.

Groundwater withdrawals were identified as the primary cause of the depressed aquifer levels throughout the groundwater basin, with drawdowns in some areas exceeding 50 feet.

The District has adopted MFLs for 41 priority water bodies in the SWUCA. As of 2015, approximately half of these MFLs are not being met. The District adopted the SWUCA Recovery Strategy to recover flows and levels to established MFLs, including reducing the rate of saltwater intrusion by achieving the proposed minimum aquifer level, restoring minimum flows in the upper Peace River and restoring minimum levels to the priority lakes in the Highlands Ridge area.

Some of the primary Recovery Strategy elements for the SWUCA include:

- Updating the Regional Water Supply Plan to identify how to address growing regional water needs while minimizing impacts to the water resources and natural systems. The District approved the updated plan in November 2015.
- Providing financial incentives for conservation, creation of alternative supplies and regional interconnections.
- Monitoring, reporting and cumulative impact analysis. The cumulative impact analysis evaluates changes in permitted and used groundwater quantities and water resource development projects benefiting the Upper Floridan aquifer in and around the MIA.

REGIONAL PRIORITIES AND OBJECTIVES
TAMPA BAY REGION — IMPROVE WATER BODIES

PRIORITY:
Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole

OBJECTIVES:
- Implement natural system projects that restore critical shoreline, coastal upland and intertidal habitats In Tampa Bay
- Implement projects for water quality, critical shoreline, wetlands and/or submerged habitats in Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole
- Initiate updates to the Lake Tarpon and Lake Thonotosassa SWIM Plans

NARRATIVE:
Lake Thonotosassa, the largest natural lake in Hillsborough County with a surface area of greater than 800 acres, is popular for recreational use as it is one of the few natural lakes in the area with public access. The lake discharges into the Hillsborough River which is used for the City of Tampa's municipal water supply. The lake is designated as a District priority water body through its implementation of the state SWIM program.

Four main challenges exist in this watershed. Nutrient loadings from the watershed have caused extreme nutrient enrichment resulting in algal blooms. Habitat quality and species diversity have declined. Nonnative plant species are more abundant, while availability of desirable sport fish has declined.

The District completed a nutrient source tracking project with Hillsborough County to identify nutrient sources in the watershed. Areas with high nutrient loadings were prioritized for projects, such as stormwater improvement projects, maintenance/control of exotic plants, enhancement of wetland and aquatic habitats and public education and awareness of stormwater pollution prevention and the importance of water quality and wetlands. As part of this implementation, the District FARMS and SWIM programs will coordinate with the Florida Department of Agriculture and Consumer Services to work with farms and ranches in the watershed to implement BMPs specific to the commodity group. Success indicators include meeting numeric nutrient criteria established by the Florida Department of Environmental Protection (DEP) for total nitrogen, chlorophyll and total phosphorus.

Tampa Bay is designated as an "Estuary of National Significance" and a SWIM priority water body. The 373-square-mile bay is Florida's largest open-water estuary. Its 2,200-square-mile watershed contains more than 2 million residents.

Three main challenges exist in the Tampa Bay watershed. Coastal uplands and wetlands have been altered and lost. Nonnative animal and plant species have spread, and water quality has been degraded from pollutants and nutrient loading.

The District is working with other government agencies on a comprehensive conservation and management plan, implementation of water quality improvement projects and restoration of the balance between coastal upland, wetland and intertidal habitats.

Success indicators include coverage of seagrasses identified by the Tampa Bay Estuary Program. The program has met its goal of recovering seagrasses to the acreage observed in the 1950s. In addition, the bay's nitrogen loading is on the decline, and the District SWIM Program and local cooperators restored 5,613 acres of coastal habitats as of September 2017.

Lake Tarpon is the largest freshwater lake in the Tampa Bay area with 2,532 acres of surface area. The lake is designated as an Outstanding Florida Water, a Fish Management Area and a SWIM priority water body.

The main challenge for Lake Tarpon has been high chlorophyll levels thought to be fueled by nutrient enrichment. This resulted in less than desirable water quality and habitat quality declines.

Results from a project the District conducted with Pinellas County indicate that Lake Tarpon is meeting the numeric nutrient criteria for total nitrogen and total phosphorus and that nutrient loading to the lake is not correlated with elevated chlorophyll values observed in the lake. The county is implementing one of the project recommendations by conducting an evaluation of the sedimentation history in the lake (a paleolimnology study) to determine whether the lake has historically had elevated chlorophyll values. If this is the case, the numeric nutrient criterion established by the DEP for chlorophyll may not be appropriate for Lake Tarpon. Both the cooperatively funded project with Pinellas County and the sediment evaluation will be used to update the Lake Tarpon SWIM Plan, which is expected to begin fall of 2018.

Success indicators included for Lake Tarpon are the numeric nutrient criteria established by DEP for total nitrogen, total phosphorus and chlorophyll.

Lake Seminole is a 684-acre freshwater lake in west-central Pinellas County that was created in the 1940s by the impoundment of an arm of Long Bayou, a brackish water segment of Boca Ciega Bay. The Lake Seminole watershed encompasses approximately 3,500 acres, of which almost 90 percent is developed. Water quality concerns in Lake Seminole began in the 1960s as urbanization of the watershed increased. Conditions in the lake worsened in the 1980s and 90s.

Lake Seminole, although not a SWIM priority water body, has been a water body of regional significance since 1992, when the District authorized funding for a diagnostic feasibility study of the watershed. Subsequently, in 2004, Pinellas County adopted the Lake Seminole Watershed Management Plan to identify and implement projects to reduce nutrient concentrations in the lake and to meet targeted water quality goals. These projects included

retrofitting stormwater outflows from five of the highest nutrient loading sub-basins with alum treatment systems, treating and redirecting a portion of flows in the Lake Seminole Bypass Canal into Lake Seminole and removing organic muck sediments. The District has been partnering with the county on these projects. Four of the five alum treatment system projects, including the Seminole Bypass Canal system, have been completed and are in operation. The fourth sub-basin alum treatment system is scheduled for completion and operation by early 2018. The project to remove organic muck sediments was authorized by the Pinellas County Board of County Commissioners in July of 2017.

Lake Seminole was included on the DEP's draft verified list in 2006 for nutrients and trophic state index. The primary pollutants associated with this impairment are nutrients, which have resulted in hyper-eutrophic conditions and poor water quality. Due to its impaired status, Pinellas County developed a Reasonable Assurance (RA) Plan in 2007 which was submitted to DEP. This RA Plan established the trophic state index and chlorophyll-a as the success indicators for Lake Seminole. Control of excessive nutrients entering the lake and the fate of the nutrients that do reach the lake (e.g., internal nutrient recycling) would help in achieving the targets, which is consistent with implementation of the Lake Seminole Watershed Management Plan.

The Rock Ponds project involves the restoration of approximately 1,043 acres of various coastal habitats. This project, which is the largest habitat restoration effort for Tampa Bay to date, was completed in cooperation with Hillsborough County.

REGIONAL PRIORITIES AND OBJECTIVES
TAMPA BAY REGION — FLOOD PROTECTION

PRIORITY:
Improve flood protection in Lake Tarpon, the Pithlachascotee, Anclote and Hillsborough rivers and Pinellas County coastal watersheds

OBJECTIVES:
- Implement BMPs to reduce the impact of existing intermediate and regional system flooding in priority areas
  - Pithlachascotee River (Pasco County)
  - Anclote River (Pinellas/Pasco County)
  - Curlew Creek and Smith Bayou (Pinellas County)
  - City of St. Petersburg (Pinellas County)
- Develop watershed management plans for priority areas to better support floodplain management decisions and initiatives
  - Curlew Creek and Smith Bayou (Pinellas County)
  - Lake Tarpon (Pinellas County)
  - Anclote River (Pinellas/Pasco County)
  - Hammock Creek (Pasco County)
  - Lower Peninsula (Hillsborough County)
  - City of St. Petersburg (Pinellas County)
  - City of Tarpon Springs (Pinellas County)
  - City of Oldsmar (Pinellas County)
- Update watershed management plans and develop alternative analyses to improve flood protection
  - Hillsborough River/Tampa Bypass Canal (Hillsborough County)
  - Pemberton Baker (Hillsborough County)
  - Alafia River (Hillsborough County)
  - Stevenson Creek (Pinellas County)
  - City of Seminole (Pinellas County)
  - City of Safety Harbor (Pinellas County)
  - City of Dunedin (Pinellas County)

NARRATIVE:
In recent years, the Tampa Bay region has experienced significant rainfall events resulting in local, intermediate and regional drainage system flooding. Flooding events in 2012, 2014, and 2015 have tested the existing stormwater infrastructure and have submerged areas that previously did not flood. In June 2012, Tropical Storm Debby produced 12 to 16 inches of rain over a 24-hour period in portions of western Pasco and Hernando counties. Flooding was most prevalent in the Peck Sink and Anclote River watersheds. In late July and early August of 2015, western portions of Pasco County experienced a 500-year storm event, receiving 12 to 30 inches of rain in a 20-day period. During this same period, northwest Hillsborough County experienced similar rainfall totals and flooding. In 2016, Hurricane Hermine produced 15 inches of rain in Pinellas County and the coastal portions of Pasco County over a four-day period. These events speak to the importance of watershed management.

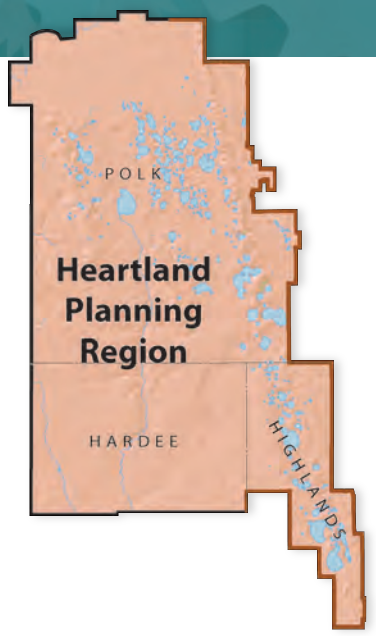
The District's WMP identifies, prioritizes and addresses flood-related water resource issues within a watershed. Information developed through the WMP is used by local governments, the District, and state and federal governments in regulatory and advisory floodplain management programs. The District takes a watershed approach to managing water and water-related resources within its boundaries. By doing so, the characteristics of each watershed can be evaluated to reflect the interconnected nature of Florida's water resources. The WMP provides a method to evaluate the capacity of a watershed to protect, enhance and restore water quality and natural systems while achieving flood protection.

The District has been working with cities and counties to develop a list of projects and a plan to implement projects over both the short and long-term. These projects are listed, updated and maintained in the District's WMP Five-Year Plan.

The District's ERP program protects floodplain and historic basin storage and ensures that new development does not increase flood levels or the rate of stormwater runoff onto neighboring properties. Information developed from the WMP is used by regulatory staff and industry consultants to identify flood-prone areas and to ensure that a proposed project design provides the required level of protection. Coordination among these groups begins during the pre-application process to identify minimum flood protection requirements, and continues as needed through the permit application review process. During flood events, District staff coordinate internally with regulatory and operations staff and externally with local governments to investigate flooding complaints and facilitate emergency measures needed to alleviate flood risks that pose an immediate threat to public health and safety.

In the Tampa Bay region, chronic flooding occurs primarily in areas that were developed prior to 1984, when the District's stormwater permitting rules went into effect. While much of this flooding is concentrated in highly developed urban areas, there are rural developments with no master stormwater system that also experience frequent flooding. District regulatory staff coordinate with the residents and local governments to provide guidance on permitting options for temporary and permanent flood relief measures. Some of these relief options can be co-funded through the District's Cooperative Funding Initiative.

REGIONAL PRIORITIES AND OBJECTIVES
HEARTLAND REGION — SWUCA RECOVERY



PRIORITY:
Implement SWUCA Recovery Strategy

OBJECTIVES:
- Achieve a net reduction of up to 50 mgd of groundwater use in SWUCA by 2025 with 40 mgd of offsets achieved through the FARMS Program
- Recover the SWUCA saltwater intrusion minimum aquifer level of 13.1 ft NGVD for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the MIA
- Recover 87 to 89 percent of the minimum flows for three segments of the upper Peace River through implementation of the Lake Hancock Lake Level Modification project
- Recover minimum levels at seven Polk County lakes and nine Highlands County lakes by 2025
- Ensure a sustainable water supply
  - Achieve and maintain daily 150-gallon compliance per capita with all public supply utilities by December 31, 2019
  - Reduce 2011 regional average water use per capita by 5 percent by 2020
  - Assist Polk Regional Water Cooperative (PRWC) in the development of 30 mgd of alternative supply sources
  - Increase percentage of total water use supplied by alternative sources
  - Maximize the water conservation potential for the region
  - Maximize interconnects among public supply utilities
  - Complete the Lower Floridan aquifer study in Polk County to assess its viability as an alternative water supply source and to gain a better understanding of the Lower Floridan aquifer characteristics and groundwater quality
  - Update the Regional Water Supply Plan for the Central Florida Water Initiative by 2020
  - Achieve 75 percent utilization of all wastewater flows and a 75 percent resource benefit by 2040. As of 2015, the Heartland region had 37 mgd of wastewater flow and 18 mgd of reuse for a utilization rate of 48 percent
  - Completed TECO's SW Polk Power Station Interconnects of reclaimed water from the cities of Lakeland and Mulberry and Polk County. This project is anticipated to provide a near-term resource benefit of 10 mgd and long-term benefit of 17 mgd **(COMPLETED)**

NARRATIVE:
Most of the District's Heartland region falls within the eight-county SWUCA, which encompasses approximately 5,100 square miles. In the SWUCA, depressed aquifer levels have caused saltwater intrusion along the coast, contributed to reduced flows in the upper Peace River and lowered lake levels in areas of Polk and Highlands counties.

Groundwater withdrawals were identified as the primary cause of the depressed aquifer levels throughout the groundwater basin, with drawdowns in some areas exceeding 50 feet.

The District Governing Board has approved the adoption of MFLs for 41 priority water bodies in the SWUCA. An MFL is the limit at which withdrawals would be significantly harmful to the water resources or ecology of the area. As of 2015, approximately half of these MFLs were not being met. The District adopted the SWUCA Recovery Strategy to recover flows and levels to established MFLs, including reducing the rate of saltwater intrusion by achieving the proposed minimum aquifer level, restoring minimum flows to the upper Peace River and restoring minimum levels to priority lakes in the Ridge area, which extends roughly 90 miles along the center of the state in Polk and Highlands counties.

Some of the primary Recovery Strategy elements for the SWUCA include:

- Updating the Regional Water Supply Plan to identify how to address growing regional water needs while minimizing impacts to the water resources and natural systems. The District approved the updated plan in November 2015.
- Providing financial and regulatory incentives for conservation, construction of alternative supplies and regional interconnections. District funding sources include the Cooperative Funding and Water Supply and Resource Development initiatives.
- Monitoring, reporting and cumulative impact analysis. The Recovery Strategy includes the continuous monitoring of trends in resource conditions and permitted and actual water use. The cumulative impact analysis evaluates changes in permitted and used groundwater quantities and water resource development projects benefitting the Upper Floridan aquifer in and around the MIA.
- Developing and implementing water resource projects to aid in reestablishing minimum flows to rivers, recover levels in Ridge lakes and enhance recharge. A project focus area is to increase the wet-weather storage in the upper Peace River watershed.

The District has been successful in multiple efforts associated with its

REGIONAL PRIORITIES AND OBJECTIVES
HEARTLAND REGION — SWUCA RECOVERY

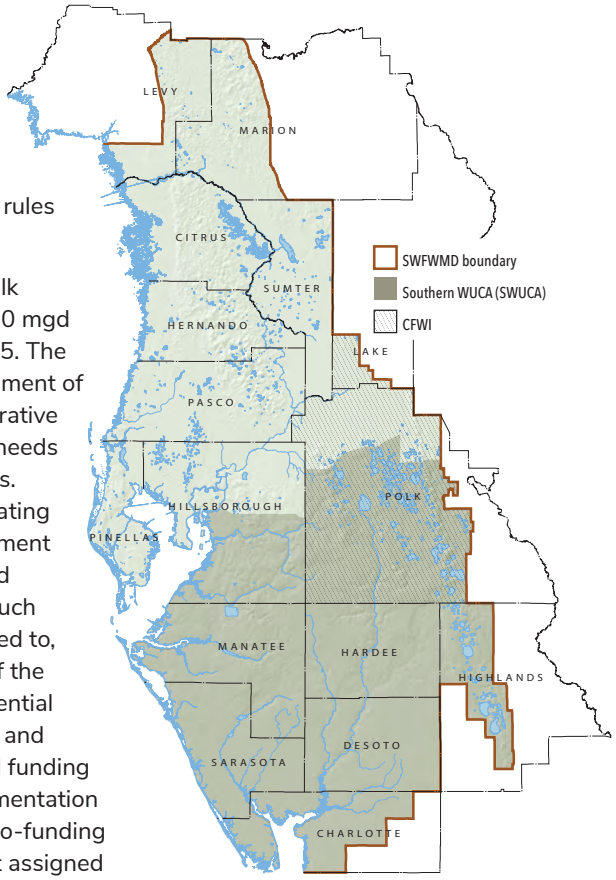
SWUCA goals. Partnering with the Peace River Manasota Regional Water Supply Authority, the District has assisted in developing a sustainable water supply to meet the needs of a four-county region in the south. The District's cooperatively-funded FARMS program has helped the agricultural community reduce its use of groundwater from the Upper Floridan aquifer. The FARMS program combined with other conservation efforts have helped to reduce Upper Floridan groundwater withdrawals by more than 50 mgd, one of the targets established by the SWUCA Recovery Plan. The District's Lake Hancock Lake Level Modification Project became fully operational in 2014 to help meet the minimum flows for the upper Peace River.

Other successes to date include completion of the TECO's SW Polk Power Station Reclaimed Water Interconnect project. This project is anticipated to provide a near-term resource benefit of 10 mgd and long-term benefit of 17 mgd.

Challenges remain in reducing the rate of saltwater intrusion along the coast and meeting minimum levels for Ridge lakes in Highlands and Polk counties. While the southern portion of Polk County is included in the SWUCA, all of Polk County is part of a designated Central Florida Water Initiative (CFWI) region that is reaching sustainable groundwater withdrawal limits, facing increased demands on water resources and inconsistencies among regulatory programs.

The CFWI region covers five counties, including Polk, Orange, Osceola, Seminole and southern portions of Lake. The boundaries of the St. Johns River, South Florida and Southwest Florida water management districts meet in the area.

The District is collaborating with the other water management districts, the state and local governments to identify a sustainable water supply for the region. Key components in meeting the water resource challenges of the CFWI region have included the development of a shared groundwater model to determine regional resource availability and the publication of the initial CFWI Regional Water Supply Plan in 2015. Other ongoing efforts include coordination and planning for water resource data collection needs, development of a coordinated strategy for MFL prevention and recovery within the CFWI region and the establishment of consistent rules among the permitting agencies.



As part of the CFWI Region, Polk County has a need to develop 30 mgd of water supply sources by 2035. The District assisted in the establishment of the PRWC in 2016 as a collaborative entity to address water supply needs among its member governments. The District is currently coordinating with the PRWC on the development of projects to meet the projected 2035 water supply demands. Such efforts include, but are not limited to, ongoing District investigation of the Lower Floridan aquifer as a potential alternative water supply source and provision of $40 million in initial funding to the PRWC to assist in implementation of identified projects. In 2017, co-funding agreements were executed that assigned $11.5 million of the initial funding for phase I of three projects. At the August 2017 workshop, the Governing Board prioritized implementation of phase II of one or more of the three projects.

Surface water pump station at Windmill Farms, Hardee County

REGIONAL PRIORITIES AND OBJECTIVES
HEARTLAND REGION — IMPROVE WATER BODIES

PRIORITY:
Improve Winter Haven Chain of Lakes and Ridge Lakes

OBJECTIVES:
- Implement plans and projects for water quality, water-level, wetlands and/or submerged habitats in each priority water body
- Identify priority Ridge Lakes in need of further evaluation and data collection

NARRATIVE:
Winter Haven Chain of Lakes is a system of 19 interconnected lakes in Polk County. Designated as a SWIM priority water body, the chain encompasses a 32-square-mile watershed and is made up of two major groups with five lakes in the northern chain and 14 in the southern chain. The lakes were interconnected through the construction of canals to promote recreational access.

Two main challenges exist in the Winter Haven Chain of Lakes watershed: nutrient loading from urban runoff and the loss of natural systems. The District is working with other government agencies to reduce non-point source pollutant loadings through pollutant reduction goals and stormwater management, to restore upland and aquatic habitats while preserving plant and wildlife populations, and to implement ecologically and environmentally sound land-use practices.

Success will be measured by water quality improvements including reductions in non-point source loading of phosphorous, decreases in nonnative or undesirable species, and increases in native aquatic and upland vegetation. Additionally, it is envisioned that lakes with sufficient water quality data will be evaluated against the DEP's numeric nutrient criteria. More information is available in the SWIM plan for the Winter Haven Chain of Lakes.

As of 2016, water quality improvement projects have been implemented for eight lakes (Conine, Howard, May, Lulu, Hartridge, Jessie, Cannon, and Mariana). In addition, 30 low impact development (LID) best management projects have been installed within the downtown area of the City of Winter Haven.

Approximately 130 lakes lie along the Ridge, which extends roughly 90 miles along the center of the state in Polk and Highlands counties. A high number of deep sinkhole basin lakes makes this region uniquely different from the other lake regions in the District, as well as throughout the state.

Declining water quality and lake levels are challenges for the lakes along the Ridge. Common water quality impacts include stormwater runoff, wastewater effluent, residential and fertilizer applications, agricultural runoff, groundwater pollution, shoreline habitat degradation and hydrologic alterations.

Through the District's Ridge Lakes Restoration Initiative, emphasis has been placed on protective lake management strategies. Stormwater treatment has been a high priority, as well as enhancement and restoration of natural systems and additional flood protection.

As of 2017, the District is initiating an evaluation of the Ridge Lakes to prioritize lakes for further evaluation to determine the projects and programs necessary to ensure that the Ridge Lakes meet the water quality objectives of the District. Success indicators will be measured by water quality improvements including reductions in non-point source loading of nutrients, decreases in nonnative or undesirable species and increases in native aquatic and upland vegetation. In addition, lakes with sufficient water quality data will be evaluated against the DEP's numeric nutrient criteria.

Lake Gwyn, Polk County

REGIONAL PRIORITIES AND OBJECTIVES
SOUTHERN REGION — SWUCA RECOVERY

PRIORITY:
Implement SWUCA Recovery Strategy

OBJECTIVES:
- Achieve a net reduction of up to 50 mgd of groundwater use in the SWUCA by 2025 with 40 mgd achieved through the FARMS program
- Recover the SWUCA saltwater intrusion minimum aquifer level of 13.1 ft NGVD for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the MIA
- Ensure a sustainable water supply
  - Achieve and maintain 150-gallon daily compliance per capita with all public supply utilities by December 31, 2019
  - Reduce 2011 regional average per capita water use by 2.5 percent by 2020
  - Maximize water conservation
  - Maximize public supply interconnects
  - Achieve 75 percent utilization of all wastewater flows and a 75 percent resource benefit by 2040. As of 2015, the Southern region had 67 mgd of wastewater flow and 35 mgd of reuse for a utilization rate of 53 percent
  - Develop ASR options for potable and reclaimed water supply
  - Increase the percentage of total water use supplied by alternative sources
  - Continue assessing the viability of using excess runoff in Flatford Swamp for improving groundwater levels in the MIA
  - Assist the Peace River Manasota Regional Water Supply Authority in completing construction on the remaining planned phases of the Regional Integrated Loop System project by 2035

NARRATIVE:
The entire Southern Region of the District falls within the eight-county SWUCA. In the SWUCA, which encompasses approximately 5,100 square miles, depressed aquifer levels have caused saltwater intrusion along the coast, contributed to reduced flows in the upper Peace River and lowered lake levels in areas of Polk and Highlands counties.

Groundwater withdrawals were identified as the primary cause of the depressed aquifer levels throughout the groundwater basin, with drawdowns in some areas exceeding 50 feet.

The District has adopted MFLs for 41 priority water bodies in the SWUCA. As of 2015, approximately half of these MFLs are not being met. The District adopted the SWUCA Recovery Strategy to recover flows and levels to established MFLs, including reducing the rate of saltwater intrusion by achieving the proposed minimum aquifer level, restoring minimum flows to the upper Peace River and restoring minimum levels to the priority lakes in the Ridge area, which extends roughly 90 miles along the center of the state in Polk and Highlands counties.

Some of the primary Recovery Strategy elements for the SWUCA include:

- Updating the Regional Water Supply Plan to identify how to address growing regional water needs while minimizing impacts to the water resources and natural systems. The District approved the updated plan in November 2015.
- Providing financial incentives for conservation, development of alternative supplies and regional interconnections. District funding sources include the Cooperative Funding and Water Supply and Resource Development initiatives.
- Monitoring, reporting and cumulative impact analysis. The Recovery Strategy includes the continuous monitoring of trends in resource conditions and permitted and actual water use. The cumulative impact analysis evaluates changes in permitted and used groundwater quantities and water resource development projects benefiting the Upper Floridan aquifer in and around the Most Impacted Area.

The District has been successful in multiple efforts associated with its SWUCA goals. Partnering with the Peace River Manasota Regional Water Supply Authority, the District has assisted in developing a sustainable water supply to meet the needs of a four-county region. The District's cooperatively funded FARMS program has helped the agricultural community reduce its use of groundwater from the Upper Floridan aquifer. The FARMS program combined with other conservation efforts have helped to reduce Upper Floridan groundwater withdrawals by more than 50 mgd, one of the targets established by the SWUCA Recovery Plan. The District's Lake Hancock Lake Level Modification project became fully operational in 2014 to help meet the minimum flows for the upper Peace River.

Much progress has been made in the region, but challenges remain to reduce the rate of saltwater intrusion along the coast and move toward meeting minimum levels.

REGIONAL PRIORITIES AND OBJECTIVES
SOUTHERN REGION — IMPROVE WATER BODIES

PRIORITY:
Improve Charlotte Harbor, Sarasota Bay, Shell/Prairie/Joshua creeks

OBJECTIVES:
- Implement plans and projects for water quality, wetlands, critical shoreline and/or submerged habitats in each priority water body
- Develop and update plans and implement projects that improve water quality and restore critical shoreline, coastal upland and intertidal habitats
- Assist local governments with implementation of BMPs to achieve water quality standards

NARRATIVE:
Charlotte Harbor is Florida's second largest open water estuary at 270 square miles. Generally considered one of the most productive estuarine ecosystems in southwest Florida, the harbor is designated an "Estuary of National Significance" and a SWIM priority water body.

Challenges to the 4,400-square-mile Charlotte Harbor watershed include alteration and loss of wetlands, an increase in nonnative plant species and water quality degradation from point and non-point source pollutants.

The success indicator is the harbor-wide seagrass target of 18,436 acres adopted by the Charlotte Harbor National Estuary Program (CHNEP) for the District's area of the harbor. More information is available in the District's SWIM Plan for the harbor. The District participates with other government agencies through the CHNEP to update and implement the comprehensive conservation and management plan, implement water quality and hydrologic alteration improvement projects and restore the balance between coastal upland, wetland and intertidal habitats.

As of 2016, the District and its cooperators have completed 14 natural systems projects which have restored approximately 4,411 acres of coastal habitats for Charlotte Harbor. Construction of the District's Lake Hancock Outfall Treatment System has been completed. This project, when fully operational, will remove an estimated 85 tons of nitrogen annually discharged from Lake Hancock to the Peace River and, ultimately, Charlotte Harbor.

Sarasota Bay is designated as an "Estuary of National Significance" and a SWIM priority water body. Similar to Charlotte Harbor, challenges to this 150-square-mile watershed include changes to coastal uplands and loss of wetlands, an increase in nonnative plant species and water quality degradation from point and non-point source pollutants.

The success indicator for Sarasota Bay is the seagrass target of 9,779 acres adopted by the Sarasota Bay Estuary Program.

Similar to efforts under way for Charlotte Harbor, the District is working with other government agencies on initiatives for Sarasota Bay. These include a comprehensive conservation and management plan, implementation of water quality improvement projects and restoration of the balance between coastal upland, wetland and intertidal habitats.

As of September 2016, the District and its cooperators have completed projects that have reduced nitrogen loading to Sarasota Bay by approximately 64 percent since 1988 and restored more than 900 acres of coastal habitats.

The **Shell, Prairie and Joshua Creek (SPJC)** watersheds are located in the southern region of the Peace River Basin. Combined, the SPJC watersheds comprise a surface area of 487 square miles, or approximately 20 percent of the Peace River Basin.

The City of Punta Gorda obtains its potable water supply from the Shell Creek in-stream reservoir. Prairie and Shell creeks (and associated tributaries) are designated as Class I waters, which means they are designated for use as potable water supplies. These creeks converge at, and sustain, the city's reservoir.

Various source inputs, over an extended period, created water quality issues in the SPJC watersheds. The FARMS program was created in 2003 with the goal of improving the watershed's water quality. Through BMP implementation, the FARMS program has partnered with producers to capture runoff in tailwater recovery ponds and reuse the water for irrigation. This reduces the amount of mineralized groundwater used within the watershed and results in downstream water quality benefits. In addition, the Shell Creek and Prairie Creek Watershed Management Plan was adopted in 2004 to improve water quality degraded by increased salinity and to achieve Class I surface water standards throughout the watersheds. The time frame to achieve reductions in the identified water quality parameters was 10 years or by 2014.

The plan included a multitude of regulatory, technical assistance, research and education programs in combination with incentives and other non-regulatory tools to form a comprehensive approach to address the full scope of water

quality issues within Shell Creek, Prairie Creek and Joshua Creek. The effort also involved a substantial level of state, federal and private resources. Many of these projects were coordinated with or implemented through the District's FARMS program.

A key success indicator is the reduction of total dissolved solids (TDS) in these surface waters as identified in the SPJC Water Management Plan. Through the implementation of the FARMS program and other initiatives, water quality concentrations for chloride, specific conductance and TDS measured at five key surface water reference sites have significantly improved. Subsequently, Prairie Creek is no longer on the DEP verified impaired list for chloride and specific conductance. Portions of two waterbodies in Myrtle Slough and Shell Creek have shown substantial improvements in water quality since 2004; however, they remain listed by DEP as verified impaired for chloride and specific conductance. The DEP's most recent verified impaired list (October 21, 2016) indicates that development of a Total Maximum Daily Load (TMDL) for these parameters is a low priority. This is in part due to the District's continued commitment to implement management actions through the FARMS program in the Shell Creek watershed to address both water quality and quantity issues (consistent with the SWUCA Recovery Strategy, SWFWMD, 2015).

Additionally, analysis of historical surface and groundwater quality conditions in the Shell Creek watershed, along with implementation of BMPs, suggest that the surface waters within Shell Creek may naturally exceed Class I drinking water standards. Monitoring of key locations will continue in cooperation with the DEP.

Sarasota Bay © Roger Wollstadt, Creative Commons

CORE BUSINESS PROCESSES

Managing and protecting the water resources of a 16-county area requires a highly skilled, motivated work force with the right tools, support and good information to make informed decisions and provide high-quality service to the residents of the District. All the various functions of this workforce have been evaluated and categorized into seven core business processes. To successfully achieve our Strategic Initiatives and Regional Priorities, the District must excel in each of these.

WATER RESOURCES PLANNING

Water Resources Planning encompasses surface water and groundwater resource evaluations and other comprehensive planning efforts in partnership with local, state, regional, federal and other stakeholders. These responsibilities include identifying, collecting, analyzing and disseminating relevant and accurate data and providing technical assistance.

Examples include the Southern Water Use Caution Area Recovery Strategy Five-Year Assessment, Minimum Flows and Levels studies, Regional Water Supply Planning, Strategic Plan Update, Consolidated Annual Report and reviews of proposed comprehensive plan amendments and large-scale development, including developments of regional impact.

INNOVATIVE PROJECTS

The District initiates and supports creative, collaborative projects to produce measurable benefits to the environment, water resources and the regional community. The projects address the core mission goals for water supply, flood protection, water quality and natural systems.

To ensure tax dollars are used as efficiently and effectively as possible, the District created a Project Management Office. Comprising a team of project managers, this Office oversees District project processes to increase efficiency and maximize benefits.

FINANCIAL SUSTAINABILITY

The District's primary funding source is ad valorem taxes, which vary from year to year. In addition to paying for its operating costs, the District provides financial incentives through partnerships with public and private entities on projects that protect and restore the water resources of the region, such as promoting water conservation, developing alternative water supplies, enhancing natural systems and water quality, and promoting flood management activities.

The District operates on a pay-as-you-go basis that allows it to make more funding available for projects. The District targets at least 50 percent of its budget each year for water resources projects.

REGULATION

Regulation involves multiple permit activities that promote a fair allocation of the water resources, protect wetlands, enforce well construction standards and ensure that new activities do not increase the risk of flooding or degrade water quality. The permitting process also monitors subsequent operational performance of permitted systems to protect the region's citizens and water resources.

The District is committed to protecting the water resources while also providing quality service in a timely, convenient and consistent manner to the regulated community. The District's Regulation Division is structured to eliminate duplication, increase efficiency and consistency and reduce costs. Centralizing the permitting review process in the District's Tampa office ensures that permit applicants throughout the District are treated consistently. Improved online permitting services make it easier and more convenient to submit a permit application and access permit data.

The District is also working with the other water management districts and the DEP to achieve statewide permitting consistency wherever possible while allowing for regional water resource differences.

LAND MANAGEMENT AND STRUCTURE OPERATIONS

Land Management and Structure Operations operate and maintain District lands and water control structures to restore and sustain natural systems and minimize flood damage.

In its 10,000-square-mile region, the District owns 450,000 acres of land that provide various water resource benefits. These lands are managed to restore and sustain those ecosystems, store flood waters, recharge the aquifer and treat water quality.

The District also operates 81 water control structures. Most of these structures are conservation structures that are operated to maintain water levels and provide limited flood relief. The larger flood control structures, like those associated with the Tampa Bypass Canal, are capable of quickly moving large quantities of water and are operated to provide maximum flood protection. Structure S-160 on the Tampa Bypass Canal is the largest flood control structure in the state.

KNOWLEDGE MANAGEMENT

As an information-based organization, high quality data are critical to making informed decisions that protect and enhance the water resources. Knowledge Management is the practice of systematically and actively collecting, managing, sharing and leveraging an organization's data, information and processes. As the region's knowledge leader for water resources information, the District collects a variety of regulatory, scientific and socio-economic and business data to support its Strategic Initiatives. While the focus of Knowledge Management activities is on meeting and supporting these initiatives, it is recognized that many public and private stakeholders also rely on this information to meet their business needs. Since FY2016, an emphasis has been placed on building awareness and expanding a culture of Knowledge Management throughout all business units within the agency, as well as improving the documentation, organization, review and storage of key business practices and related supporting documentation (governing documents). In FY2018, the focus will be on improving the organization of governing documents to

facilitate knowledge sharing, ensure the alignment of division/bureau practices with Governing Board policies and executive director procedures, and allow for timely retrieval and review of existing governing documents.

Information technology and water resource data collection activities at the District are managed by a governance procedure, with oversight by a governance committee that includes members of the District's Executive Team. The information technology and data governance process monitors, informs, and controls the efficient and effective use of information technology and data collection to ensure these initiatives and associated resource expenditures are in alignment with the strategic direction and priorities of the District. The focus for the future will be on expanding governance processes across all business practices at the District to further supplement the District's Knowledge Management initiatives.

The District promotes consistency of data collection activities by coordinating with local, regional and state entities through participation on statewide, regional councils and interagency workgroups. The District is also working with the other water management districts and state agencies to implement common replacement standards for equipment; to develop common standards for sharing financial, geospatial, scientific and permit information; and to establish frameworks for joint development of software applications.

ENGAGEMENT

Engagement is a key to retaining a highly skilled and motivated work force, the cornerstone of any successful organization. Keeping staff informed and involved promotes good morale and increases productivity. Additionally, engagement extends beyond internal staff.

To manage water resources effectively over a large region, engaging external publics, including citizens, media, elected officials, advisory committees and other stakeholders is also critical. Outreach and education engage these various groups to foster behaviors, secure funding and assist in developing laws that conserve, protect and sustain Florida's precious water and related natural resources. Also, through its planning and outreach processes the District collaborates with stakeholders and advisory committees to help meet those goals. Input from stakeholders and advisory committees is used by the Governing Board to make water resource decisions.

Engagement helps to communicate those shared interests, forging relationships that support collaboration to benefit the region's water and related resources, economic stability and quality of life.

Southwest Florida
Water Management District

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KH/01-2018

Strategic Plan Annual Work Plan Report

Section 373.036(2)(e)4 Florida Statutes (F.S.) indicates the water management districts may substitute an Annual Work Plan Report, included as an addendum to the annual Strategic Plan, for the statutorily-required District Water Management Plan. The annual work plan report must detail the implementation of the Strategic Plan for the previous fiscal year, addressing success indicators, deliverables and milestones. The Southwest Florida Water Management District (District) has decided to submit an annual Strategic Plan and Annual Work Plan Report in lieu of the District Water Management Plan.

The Annual Work Plan Report is intended to fulfill the statutory requirement by identifying the regional priorities and objectives in the Strategic Plan, and providing a discussion of the milestones, success indicators and deliverables achieved in FY2017 as they relate to the specific programs that implement the plan.

Northern Region Priorities and Objectives

Priority: Improve Northern Coastal Spring Systems

Objective: Implement water quality improvement projects in each priority water body or springshed to move closer to the established water quality standards

Surface Water Improvement Management (SWIM) plans were approved for the Chassahowitzka, Homosassa and Weeki Wachee rivers. These plans identify and implement specific management actions and projects (i.e., programs, initiatives and Cooperative Funding Initiative) to address major issues facing the systems. Plans for Crystal River/Kings Bay and Rainbow River were completed and approved in earlier years. The following table summarizes the status of projects for the five springs.

Springs Projects and Initiatives Status

Resource	Completed	Ongoing	Proposed
Crystal River/Kings Bay	5	31	14
Rainbow River	4	30	6
Weeki Wachee River	1	28	2
Homosassa River	0	28	1
Chassahowitzka River	0	26	0

Source: Springs and Environmental Flows staff, 2017

Objective: Establish natural systems restoration plans with targets and implement identified projects for each spring

The District recently approved management plans for all five first-magnitude springs groups. These plans also serve as the SWIM plan for the corresponding water body. Each approved plan includes numeric targets called quantifiable objectives. These are long-term objectives used to develop and prioritize management actions and projects, thus promoting effective and efficient resource management. If the objectives are achieved, the expected result is a healthy spring ecosystem.

Significant accomplishments for springs in 2017 include the Three Sisters Springs Sediment Removal Feasibility Study (W440) and the Rainbow Springs Group Groundwater Quality Source Evaluation

(P104). The former includes sediment distribution mapping and a topographic survey for determining whether the amount of sediment removal is needed to restore the springs pool. It was determined that sediment removal is not needed at this time. The latter uses available data sources, such as existing monitoring wells and water quality data, to develop water quantity and quality strategies to address the primary source of nutrients and related recharge water from within the springshed.

Priority: Ensure Long-Term Sustainable Water Supply

Objective: Increase conservation

The District has been making progress toward meeting the conservation and per capita goals for the Northern region. More utilities have reduced per capita water use through conservation activities. There were 14 utilities not meeting the 150 gallons per day (gpd) compliance per capita requirement in 2011 and five in 2016. The regional average compliance per capita in 2016, however, has increased to 136 gallons per capita per day (gpcd) from 124 gpcd in 2015. This change from the historical downward trend in per capita water use is attributed to low rainfall in the Northern region. In 2016, rainfall totaled 48.49 inches compared to 52.04 inches and 61.12 inches in 2015 and 2014, respectively. The recent decrease in regional rainfall triggered a temporary increase in water demand for uses such as landscape irrigation.

The District has also been active in promoting conservation in the Northern region. These efforts include cooperatively funding five conservation projects with northern utilities in FY2017. These projects are estimated to conserve a total of 128,000 gpd, and have a District investment of $173,000. Efforts associated with the District's Conservation Initiative are also significant. The Conservation Initiative aims to assist utilities implement demand reduction initiatives, with the Northern region and Polk County as priority areas, where the compliance per capita is greater than 150 gpd, or the utility is thought to be large enough to have a significant impact on the overall regional per capita. The effort is in the process of developing an executive report summarizing the initiative's efforts and findings to date.

Finally, the District operates a leak detection program to help public supply water utilities in finding water leaks in utility water distribution systems. Among the services provided are comprehensive leak detection surveys (systematic or point) and meter accuracy testing (source and service). In 2017, staff worked with Northern region utilities to conduct five leak detection surveys. These surveys identified water leaks totaling approximately 126,000 gpd. Since the program's inception, for the Northern region, more than 530 water leaks have been identified, resulting in over 2.3 million gpd of water conserved.

Objective: Maximize beneficial use of reclaimed water

The Strategic Plan identifies the objectives of 75 percent reuse utilization and resource benefit by 2040. As of 2016 (latest data), with District assistance, this region has achieved 65 percent utilization and 73 percent resource benefit, exceeding the interim 2020 goals of 55 percent utilization and resource benefit. For 2016, the region had a beneficial reuse flow of 13.4 million gallons per day (mgd), while the objectives are 12 mgd by 2020 and 24 mgd by 2040. The regional water supply planning process updates these targets as needed.

Objective: Partner with the Withlacoochee Regional Water Supply Authority to promote regional water supply planning and development

The District maintains an ongoing partnership with the Withlacoochee Regional Water Supply Authority (WRWSA) to promote regional water supply planning and development. In cooperation with the District, the WRWSA completed its Regional Water Supply Plan in 2014. This Plan evaluated water use demand for all use categories and identified projected increases of approximately 96.7 mgd from 2010 to 2035. The quantity of water available and demand reduction potential for the same period ranges from 175 to 195 mgd, indicating that demands for all use categories can be met through 2035.

Water supply development partnerships under way with WRWSA include the Regional Irrigation System Evaluation program. This initiative addresses outdoor water conservation. The District is also cooperatively funding the WRWSA's Regional Water Supply Plan update in fiscal year 2018, the results of which will be reflected in the District's next five-year update of its Regional Water Supply Plan scheduled for completion in 2020.

Tampa Bay Region Priorities and Objectives

Priority: Implement Minimum Flows and Level Recovery Strategies

Objective: Northern Tampa Bay Water Use Caution Area Recovery Strategy

The Northern Tampa Bay Water Use Caution Area (NTBWUCA) was established to address adverse impacts to water resources from groundwater pumping. The "Comprehensive Environmental Resource Recovery Plan for the Northern Tampa Bay Water Use Caution Area" serves as the recovery plan for the NTBWUCA.

The 2016 minimum flows and levels (MFL) status assessment indicated that MFLs for 7 of 7 groundwater levels, 27 of 41 wetlands, 1 of 2 freshwater river segments, 2 of 2 springs, 1 of 3 estuaries and 42 of 72 lakes within the NTBWUCA are currently met. This assessment also documents continued hydrologic recovery for 2 lakes and 6 wetlands.

As part of the recovery plan, Tampa Bay Water is required to develop and implement a "Permit Recovery Assessment Plan." This plan will identify assessments to determine the beneficial impact of reducing groundwater withdrawals in regional wellfields. Additionally, Tampa Bay Water will identify remaining adverse impacts and evaluate potential options to address them. The final results will be submitted with its permit renewal in 2020. The current permit contains a special condition requiring that draft results be submitted to the District in 2018. Tampa Bay Water and the District are currently meeting monthly to discuss analyses, review findings and project status. It is expected that these meetings will continue on a regular basis through 2020.

The Hillsborough River is a major water resource affected by withdrawals in the NTBWUCA. The recovery strategy for the lower Hillsborough River calls for augmentation of flows in the river below the Hillsborough River Reservoir using a variety of sources and projects. In accordance with the strategy, the District has, since November 2007, supported City of Tampa projects associated with diversion of water from Sulphur Springs to a point downstream of the reservoir for recovery of MFLs established for the lower river. Additionally, since December 2007, the District has diverted water from the Tampa Bypass Canal to the lower river via the reservoir when needed for MFLs recovery. In December 2015, the DEP issued a water use permit to the District for the Tampa Bypass Canal diversions. The District has continued to work with the City of Tampa on the transfer of ownership of District pumping facilities used for the diversions, execution of easements and agreements for the facilities and modifications of control gates at the Hillsborough River Dam to support MFLs recovery. The District has also provided funding support for the City of Tampa's Blue Sink Project, which was completed in September 2017 and involves pumping water from the sink for augmentation of the lower river. The District continues to support the City's investigation of the feasibility of the Tampa Augmentation Project (TAP) that could increase supplies to the reservoir and enhance recovery of the lower river.

The Morris Bridge Sink Project, which will be funded, owned and operated by the District, is also expected to assist in meeting MFLs in the lower river. The project involves pumping water from Morris Bridge Sink into the Tampa Bypass Canal for diversion to the lower river through the reservoir. A water use permit for the planned withdrawals from the sink was issued to the District by the DEP in January 2016. Initial pre-withdrawal monitoring and reporting required by the permit was completed in March 2017. Project design and permitting is ongoing.

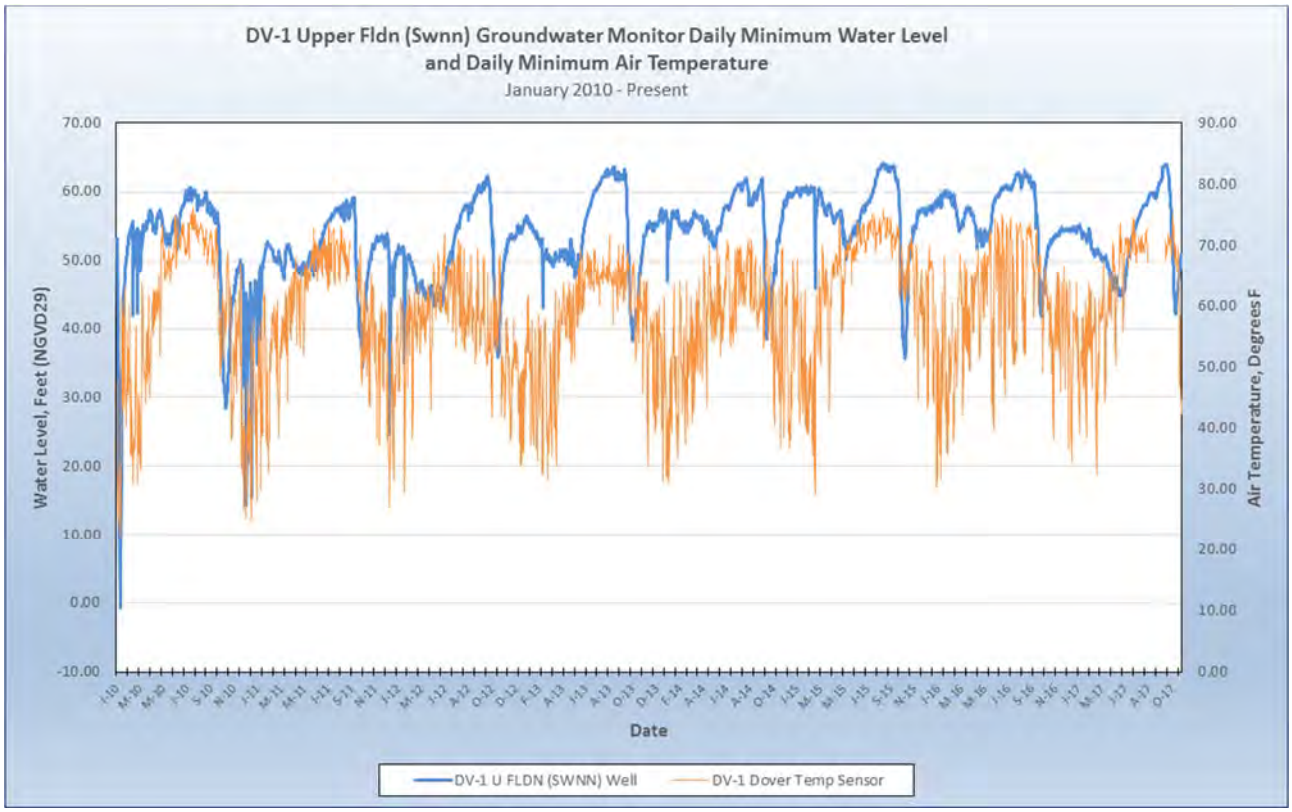
The District continues to evaluate and monitor recovery of the MFLs established for the lower Hillsborough River. In FY2015, the District completed the first of three-planned five-year recovery strategy assessments for the river. This first assessment documented hydrologic and other environmental improvements associated with the ongoing implementation of recovery strategy projects. Work is under way for the completion of a second assessment in 2018.

Objective: Dover/Plant City Recovery Strategy

The Dover/Plant City Water Use Caution Area (DPCWUCA) was established to address impacts from groundwater pumping for frost/freeze protection. The District has developed and adopted a comprehensive management plan to reduce and monitor groundwater pumping during future freeze events.

The DPCWUCA's recovery strategy established a minimum aquifer level (MAL) of 10 feet at the DV-1 monitoring well. The graph below depicts the correlation between temperature and the water levels at DV-1. As temperature drops, farmers increase pumping for crop protection, affecting the aquifer. As depicted below, the aquifer level has not come close to the MAL since January 2010. The additional strategies addressed below help to ensure continued compliance with this target.

Water Level and Air Temperature Tracking (January 2010-Present)



Source: District Hydrologic Data staff, 2017

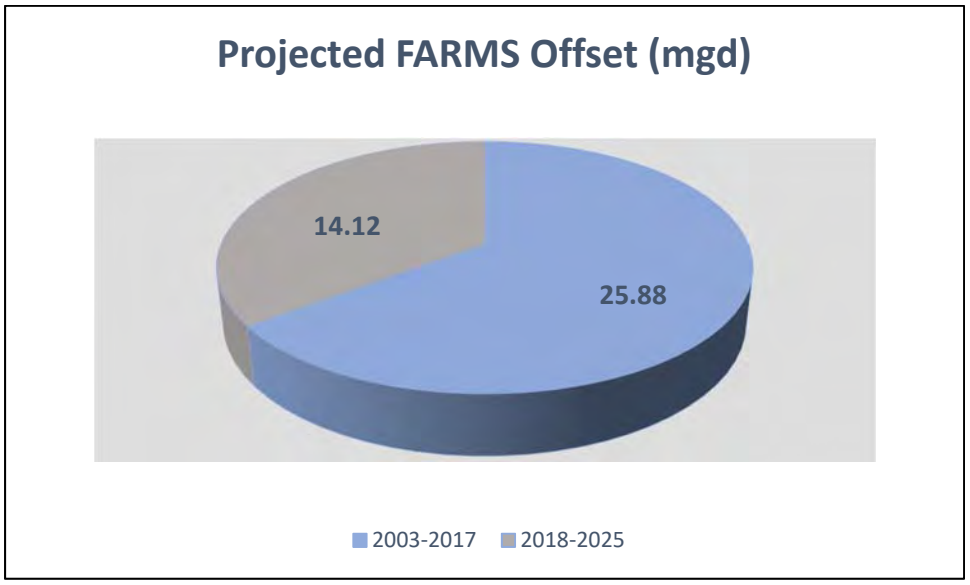
One of the tactics in this strategy is to reduce January 2010 crop protection withdrawals by 20 percent by January 2020. An evaluation was completed in 2015 assessing the required 10 percent reduction in groundwater withdrawals for cold protection, and the resulting impact on the minimum aquifer level. This evaluation confirmed that there are no new cold protection groundwater withdrawals being allocated within the Minimum Aquifer Level Protection Zone, and the reductions in groundwater withdrawals in the water use caution area are continuing to occur, primarily because of declines in citrus cold protection. The continuation of this trend is anticipated.

The installation of automatic meter (AMR) devices is another critical component of the DPCWUCA recovery strategy. Metering is critical so that the recovery assessment can include an empirical evaluation of actual pumping reduction, as opposed to only a review of permitted quantities. At the time of rule development, there were approximately 626 unmetered agricultural withdrawal points in the DPCWUCA that required flow meters. At the start of the DPCWUCA AMR installation program, there were 961 agricultural withdrawal points that required AMR devices. As of October 1, 2017, 566 withdrawals require

flow meter installation, and 908 withdrawals require AMR installation. The District has set an objective to achieve AMR installations on all 908 points by 2018, including the 566 unmetered sites. The District is also providing reimbursements for the installation of flow meters, upon meeting certain criteria. Program progress to date includes the installation of AMR devices on 762 of the targeted agricultural withdrawal points, approximately 84 percent of the total, and the installation/reimbursement for 501 flow meters, approximately 88.5 percent of the total required.

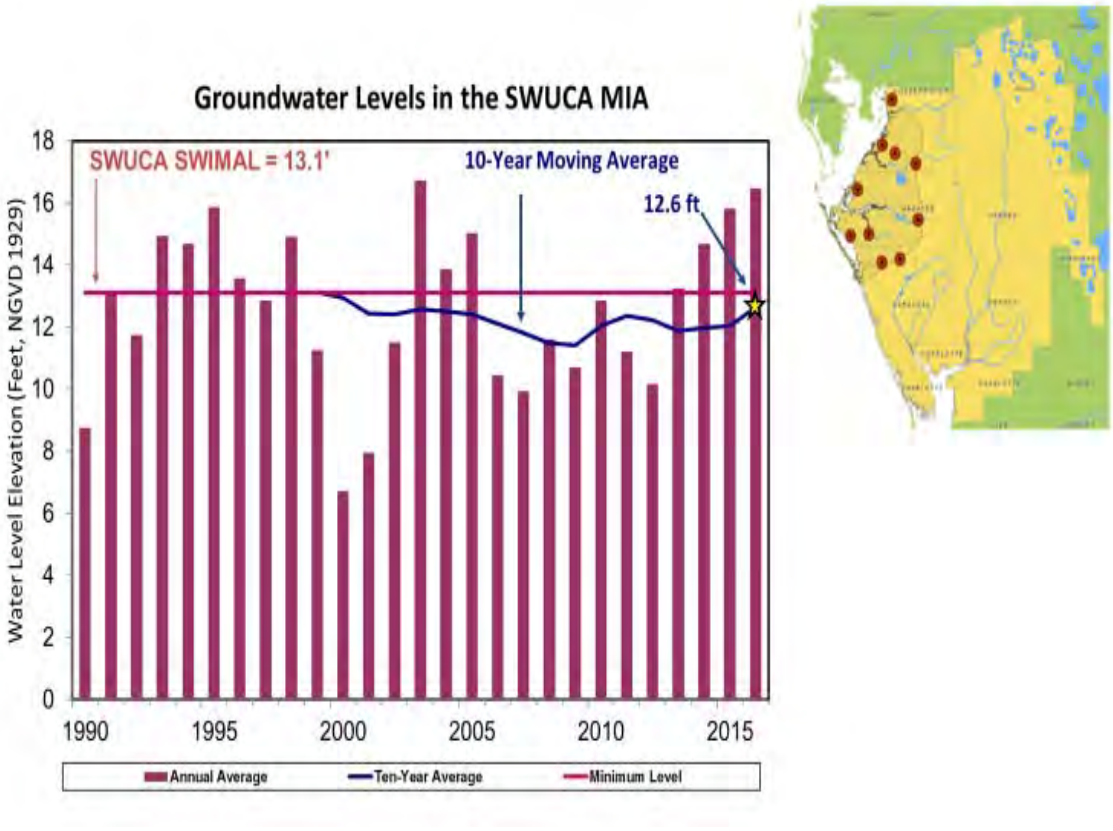
Objective: Southern Water Use Caution Area Recovery Strategy

The District has a target of offsetting up to 50 mgd in groundwater withdrawals in the Southern Water Use Caution Area (SWUCA) in 2025, with 40 mgd to be achieved through the Facilitating Agricultural Resource Management Systems (FARMS) program. The District has offset approximately 25.88 mgd of groundwater in the SWUCA through FARMS projects that are operational, under construction and/or have contracts pending. The table below depicts current offsets and future FARMS targets for the period to 2025. The projection for 2018-2025 has been capped at the 40 mgd target.



Source: District FARMS staff, 2017

The saltwater intrusion minimum aquifer level (SWIMAL) for the MIA is an important indicator of overall progress due to the regional nature of the aquifer and implications for requests for new groundwater withdrawals. One of the goals for this effort is the recovery of the SWIMAL of 13.1 feet by 2025. The table below depicts progress on the SWIMAL in this recovery. The most recent measurement (2016) is 12.6 feet.



District Resource Evaluation staff, 2017

The two primary factors influencing water levels in the region are rainfall and groundwater withdrawals. Rainfall, the primary source of water to the hydrologic system in the groundwater basin, has been highly varied over the last several years. Since 2004 and 2005, when the region experienced several tropical storms, the area has received less than long-term average annual rainfall. Additionally, activities that use water, such as agricultural and landscape irrigation, require increased withdrawals to supplement lower rainfall amounts. Increases in groundwater withdrawals during these periods can cause surface water levels to decline further than would be expected given below average rainfall alone. Though recent rainfall has been below the long-term average, estimated groundwater withdrawals (including metered withdrawals) have generally declined due to changes in water use related activities in the basin, averaging about 570 mgd since 2006. Withdrawals from the Upper Floridan aquifer represent about 90 percent of total groundwater withdrawals in the area. Though total groundwater withdrawals in the region have decreased over the past 10 years, locally there are areas that have experienced increases in withdrawals, as well as a shift from one water use type to another.

The first five-year assessment for the SWUCA Recovery effort was completed for the period 2007-11 in 2013, and the assessment covering the period 2012-16 is being developed. Several activities have been implemented since the last assessment for achieving the SWIMAL by 2025. These include annual assessments of the aquifer level, stakeholder meetings, implementation of improved scientific models and information and projects for water conservation, alternative water supply (AWS) and aquifer recharge. Concerning aquifer recharge, preliminary analyses indicate Upper Floridan aquifer recharge on the order of 10 mgd in the MIA would be sufficient to meet the SWIMAL. The District continues to explore a project (i.e., Flatford Swamp) that would recharge the Floridan aquifer with excess water within the swamp. To date, the District has contracted for the construction of a test well and for the evaluation of surface water injected into the Floridan aquifer.

Early results of the assessment effort show seven of the eight lakes (i.e., Clinch, Eagle, McLeod, Wailes, Jackson, Little Jackson, Letta and Lotela) identified in the original 2006 SWUCA Recovery report are below the adopted minimum levels. When the SWUCA Recovery was adopted in 2006, all eight lakes were below adopted minimum levels. Currently, there are a total of 28 lakes in the SWUCA with adopted minimum levels. Of these 28 lakes, 12 meet minimum adopted lake levels and 16 do not.

Other activities since the earlier assessment include stakeholder workshops to discuss strategies for addressing lake levels, reassessment of several adopted MFLs, implementation of improved science and customized approaches for determining minimum levels. Current efforts under way for the lakes include improved monitoring and recovery investigations for lakes Wailes, Jackson and Lotela.

The recovery's water supply goal is to ensure sufficient water supplies. Water supply demand is expected to increase 94 mgd by 2025. Steps completed or under way include assistance with the creation of the Polk Regional Water Cooperative for developing 30 mgd of water supplies for Polk County and its municipalities, Lower Floridan exploration efforts, funding assistance to the Polk Regional Water Cooperative for AWS projects and FARMS water conservation projects. The District has also funded several components of Peace River Manasota Regional Water Supply Authority's (PRMRWSA) regional loop system.

Another recovery goal is to restore minimum flows in the upper Peace River by 2025. Construction is completed on the Lake Hancock Project. For the next three to five years the project will be in the testing and optimization phase to maximize flows to help achieve established minimum flows for the upper Peace River. For additional information on this project see Lake Hancock objectives for the Heartland region.

As noted, this year work was initiated on the 2012-16 SWUCA five-year assessment. Plans are to finalize the report sometime in early Spring 2018.

Priority: Improve Lake Seminole, Lake Tarpon, Lake Thonotosassa and Tampa Bay

Objective: Implement plans and projects for water quality, critical shoreline, wetlands and/or submerged habitats in each priority water body

The District's Tampa Bay water quality priorities include Lake Seminole and the SWIM water bodies, Lake Tarpon, Lake Thonotosassa and Tampa Bay. The District is continuing to work with local governments on projects to assess the conditions of these water bodies and to identify and implement projects to improve water quality and habitat. Specific projects and associated fiscal year 2017 milestones are discussed below.

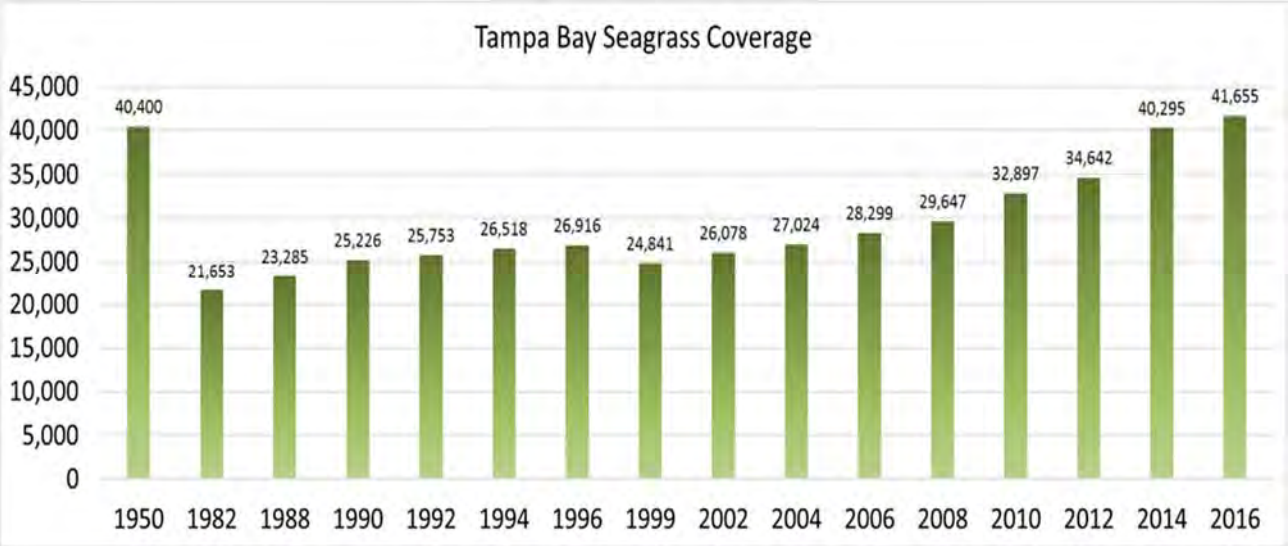
Lake Seminole: Lake Seminole is the only non-SWIM priority water body included as a regional priority for the Tampa Bay region. A major concern for Lake Seminole is nutrients. The District is cooperatively funding a project with Pinellas County for the design, permitting and implementation of four water quality treatment systems to improve the quality of runoff currently entering Lake Seminole. In FY2014, the District completed two of these projects, which removed 623 pounds (lbs) of nitrogen per year. Another Lake Seminole project was completed in a previous fiscal year, bringing the total removal rate to 1,397 lbs per year. Construction of the final water quality treatment system was not completed this year as a result of delays arising from Hurricane Irma. Construction of this last sub-basin BMP is anticipated to be complete in FY2018. The objective is to remove 2,055 lbs per year. In addition, Pinellas County selected a contractor to complete the cooperatively-funded Lake Seminole Sediment Removal project anticipated to remove approximately 900,000 lbs of total nitrogen from the lake. The project is expected to begin in FY2018

Lake Tarpon: The District and Pinellas County completed the Lake Tarpon Water Quality Management Plan in FY2017. The Plan concluded that Lake Tarpon was not meeting the water quality standard for chlorophyll-a, based on the State's Numeric Nutrient Criteria (NNC), found in 62-302.531, Florida Administrative Code. The NNC for total nitrogen and total phosphorus were within the limits of the criteria. Based on this and other findings of the Management Plan, the County is performing a paleoliminology study to evaluate historic chlorophyll-a concentrations for comparison to recent values. The District included funds in the FY2018 budget to begin the update of the Lake Tarpon SWIM Plan.

Lake Thonotosassa: The District partnered with Hillsborough County to conduct a Nutrient Source Tracking Project to determine the source of nutrients affecting the lake's health. The project was completed in FY2017 and the primary sources of nutrients in the watershed were determined to be fertilizer and wastewater. The report recommended several stormwater treatment projects that would reduce nutrient loading to the Lake. Another recommendation was collaboration with the Florida Department of Agriculture and Consumer Services (FDACS) to enroll in the Best Management Practices Program and provide education and outreach regarding Lake Thonotosassa water quality. The District FARMS and SWIM programs have begun collaborating with FDACS. The study's findings and recommendations will be used to update the SWIM plan.

Tampa Bay: Tampa Bay has shown significant water quality improvement in recent years, as evidenced by growth in seagrass recovery, an indicator of overall bay health. Data for 1988-2016 (latest available) are presented below. The graph shows seagrass coverage has surpassed the goal of 38,000.

Seagrass Coverage Tracking



Source: District SWIM staff, 2017

- In 2014, seagrass acreage in Tampa Bay surpasses the Tampa Bay Estuary Program's 38,000-acre restoration target
- 3% increase in seagrass acreage from 2014 to 2016
- SWIM has created 14 maps to track the progress of seagrass and bay health over time

Objective: Complete plans and implement natural system projects that restore critical shoreline, coastal upland and intertidal habitats

The District's SWIM program continues its restoration work for Tampa Bay. In fiscal year 2017, the District completed restoration of 3.29 acres of estuarine wetlands and coastal uplands. There are several ongoing restoration projects in Tampa Bay slated for completion in fiscal year 2018.

In fiscal year 2014, the District began tracking restoration by habitat type. The District supports the Tampa Bay Estuary Program's (TBEP) Habitat Restoration Master Plan. In 2008, TBEP identified 3,070 acres remaining to satisfy the 37,914-acre freshwater wetland restoration target, and 2,758 acres remaining to reach the estuarine wetland restoration target of 7,600 acres. The TBEP is working to update its Habitat Restoration Master Plan. Completion is anticipated in 2018. Subsequent to completion, the District will reassess its habitat restoration priorities in Tampa Bay.

Heartland Region Priorities and Objectives

Priority: Implement Southern Water Use Caution Area Recovery Strategy

Objective: Achieve a net reduction of up to 50 million gallons daily of groundwater use in SWUCA by 2025 with 40 mgd of offsets achieved through agricultural reductions via the Facilitating Agricultural Resource Management Systems Program

See Tampa Bay Regional Priorities and Objectives for a discussion on this objective.

Objective: Recover the SWUCA saltwater intrusion minimum aquifer level of 13.1 ft NGVD for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the Most Impacted Area

See Tampa Bay Regional Priorities and Objectives for a discussion on this objective.

Objective: Recover 87 to 89 percent of the minimum low flows for three segments of the upper Peace River through implementation of the Lake Hancock Lake Level Modification Project

The Lake Hancock Lake Level Modification Project involved replacement of the control structure (P-11) to raise the normal operating level of the lake and allow for release of excess water during the dry season to increase the number of days the upper Peace River will meet minimum flows. Prior to structure replacement, the upper Peace River exceeded minimum low flow thresholds 70 percent of the days for the period 1975 to 2004. The District began operating the structure in 2016 to help achieve minimum low flows. For 2017 through October, provisional measured flows exceeded minimum flows 86 percent of the days. Long term, it is projected that operation of the structure will result in actual flows greater than minimum low flows 87 to 89 percent of the days. See companion Heartland objective entitled "Reduce nitrogen load from Lake Hancock into Charlotte Harbor via the Peace River by 27 percent through the Lake Hancock Wetland Treatment System" for additional information.

Objective: Recover minimum levels at seven Polk County lakes and nine Highlands County lakes by 2025

See Tampa Bay Regional Priorities and Objectives for a discussion on this objective.

Objective: Ensure a sustainable water supply

The District utilizes per capita water use to help ensure a sustainable water supply in the future and to measure progress in measuring conservation. Specifically, the goals are to achieve and maintain 150 gallons per day compliance per capita with all public supply utilities and to reduce the 2011 Heartland regional average compliance per capita by five percent by 2020. The District has been making progress toward meeting these per capita objectives in the Heartland. The region's average compliance per capita has declined nine percent since 2011 to 95 gpcd in 2016.

The progress in per capita water use can be attributed to water savings achieved through a combination of regulatory, economic, incentive-based and outreach measures, as well as technical assistance. The number of utilities above 150 gpcd has declined from four utilities above 150 in 2011 to only two in 2016.

In 2015, Polk County and its municipalities entered into an inter-local agreement to create the Polk Regional Water Cooperative (PRWC) to promote regional cooperation in the development of new water supplies. A comprehensive water supply assessment was completed to assist the PRWC with evaluation of potential water supply projects for the development of up to 30 mgd of AWS. In 2017, the PRWC selected three project options that had the potential to collectively provide 30 mgd: (1) West Polk County Deep Wells (N882); (2) Polk Southeast Wellfield (N905); and (3) Peace Creek Integrated Water Supply Plan (N928). The PRWC Board approved the projects and associated implementation agreements to begin

work on phase one of each project. Coordination is under way with the PRWC to develop a resolution for phase two of one or more of the three selected projects that will identify timing, annual amounts to be set aside and milestones required for each annual allocation. District Governing Board approval of the resolution will be requested by May. From FY2014-15 to FY2017-18, the District's Governing Board has allocated a total of $40 million for project development. Of this total, $11.5 million has been approved for Phase One of three projects from the allocated funds. An additional $5 million allocation is proposed for the FY2018-19 budget.

The Lower Floridan aquifer (LFA) study is ongoing in Polk County. This project assesses the LFA's viability as an AWS and seeks to gain a better understanding of its characteristics and quality in Polk County. The District has executed agreements with three consultants for investigations near Crooked Lake, Frostproof and Lake Wailes. Well construction and testing is proceeding at Crooked Lake and Frostproof. Lake Wailes is scheduled for construction and testing sometime in the fall of 2018.

The District also approved the Central Florida Water Initiative (CFWI) Regional Water Supply Plan (RWSP) in November 2015. The CFWI region covers five counties, including Polk and southern Lake in the District, as well as Orange, Osceola and Seminole counties. The RWSP details how to best meet the regional water supply needs for the region to 2035. As part of this planning effort, the CFWI teams identified potential AWS, reclaimed water and conservation options. Several of the projects and conservation options are being implemented. Work on the 2019 RWSP for the CFWI has commenced and planning activities are under way.

The Strategic Plan identifies reuse objectives of 75 percent utilization and resource benefit by 2040. With District assistance, as of 2016 (latest data), this region has achieved 54 percent utilization and 93 percent resource benefit, well on the way to meeting or exceeding the interim 2020 goals of 55 percent utilization/resource benefit. As of 2016, the region has a beneficial reuse flow of 20.3 mgd, while the objectives are 23 mgd by 2020 and 42 mgd by 2040. The regional water supply planning process updates these targets as needed.

The TECO Southwest Polk Power Station Reclaimed Water Interconnects to the City of Lakeland, Polk County and Mulberry was completed in December 2017. The projected benefits are expected to be eight to nine mgd in 2017, 10 mgd in 2025 and 17 mgd by 2035.

Finally, the District is working to maximize reclaimed interconnects. In 2016, 11 wastewater treatment plants of 41 in the Heartland have (or have co-funded projects which will result in) interconnected reuse systems.

Priority: Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace CreekCanal

Objective: Implement plans and projects for water quality, critical shoreline, wetlands and/or submerged habitats in each priority water body

An assessment of the Ridge Lakes was completed in 2003 for development of management strategies. Assessments were performed for 105 lakes (i.e., 61 in Highlands County, 44 in Polk County). Initial studies identified 26 lakes as threatened by the direct discharge of untreated stormwater. Of these 26 lakes, 11 were selected for additional analysis and implementation activity based on a variety of factors (cost, land ownership, feasibility, etc.). Since that time, projects have been completed on lakes Isis, Tulane, Clinch, Verona, Clay and Menzie. Construction of BMP(s) for lakes June-in-Winter and McCoy began in August 2017 and is expected to be completed in 2018.

During FY2017, the District initiated a project to prepare and update the implementation plan for the Ridge Lakes Restoration Initiative. The primary objective of this project is to create a planning document to identify additional projects in the Ridge Lakes watershed for water quality improvements and restoration of natural systems.

The District continues to partner with local governments to implement projects to improve water quality in the Winter Haven Chain of Lakes. Most of downtown Winter Haven is located within the Northern and Southern Chain of Lakes watersheds, which are SWIM priority water bodies. Hydrologic changes to the lakes and the high degree of urbanization have increased nutrient loading to the lakes and degraded water quality. More than 40 best management practices (BMPs), including the addition of rain gardens, improved swales, small isolated wetlands and other passive treatment methods within the downtown area of the City of Winter Haven and the outlying neighborhoods, have been installed. Ongoing projects with the City include the design and construction of low impact design (LID) percolation and infiltration BMPs.

Objective: Reduce nitrogen load from Lake Hancock into Charlotte Harbor via the Peace River by 27 percent through the Lake Hancock Wetland Treatment System

In FY2014, the District completed the construction and plantings for the Lake Hancock Wetland Treatment System, which is designed to reduce nitrogen loading in the water discharging from Lake Hancock through Saddle Creek to the Peace River. Nitrogen has been identified as the primary target in restoring water quality to the Peace River and preventing degradation of Charlotte Harbor. Currently, the project is being managed to promote growth and recruitment of wetland vegetation. Establishment of a dense growth of wetland vegetation is paramount to denitrification processes and also to sequester phosphorus loading from the soils. The treatment system is expected to be fully operational in 2018.

Southern Region Priorities and Objectives

Priority: Implement Southern Water Use Caution Area Recovery Strategy

Objective: Achieve a net reduction of up to 50 million gallons daily of groundwater use in SWUCA by 2025 with 40 mgd of offsets achieved through agricultural reductions via the Facilitating Agricultural Resource Management Systems Program

See the Tampa Bay Regional Priorities and Objectives for a discussion on this objective.

Objective: Recover the SWUCA saltwater intrusion minimum aquifer level of 13.1 ft NGVD for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the Most Impacted Area

See the Tampa Bay Regional Priorities and Objectives for a discussion on this objective.

Objective: Ensure a sustainable water supply

The District utilizes per capita water use to help ensure a sustainable water supply in the future and to measure progress in measuring conservation. Specifically, the goal is to achieve and maintain 150 gallons per capita per day compliance with all public supply utilities and to reduce the 2011 Southern Region average compliance per capita by five percent by 2020. The region has only one utility above 150 gpcd, and the regional average compliance per capita has declined by nine percent to 79 gpcd.

Reuse has also had an important role in helping with reductions in the per capita. As of 2016 (latest data), this region has achieved 50 percent utilization and 71 percent resource benefit, well on the way to meeting or exceeding the interim 2020 goals of 55 percent utilization/resource benefit. As of 2016, the region has a beneficial reuse flow of 35.0 mgd, while the objectives are 39 mgd by 2020 and 65 mgd by 2040. The regional water supply planning process updates these targets as needed.

The District continues to explore ASR options and partnership opportunities in the SWUCA. Both surface water and reclaimed water sources exist in sufficient quantity for recharge and ASR to provide recovery benefit. Preliminary stakeholder feedback on this issue indicates that utilities will be looking for ways to provide a benefit to their customers. The District continues to fund an aquifer recharge feasibility and pilot testing project in Hillsborough County. This project would use excess reclaimed water to recharge the Most Impacted Area of the SWUCA. Potential benefits include providing a saltwater intrusion barrier.

The District is working to develop AWS in the SWUCA. Alternative supply is an important tool in meeting recovery goals, specifically to offset projected increases in public supply groundwater demand. The SWUCA recovery strategy identified more than 50 mgd of potential AWS projects.

A major District project aimed at recovering the SWIMAL is the Flatford Swamp Project in eastern Manatee County. Hydrologic alterations and excess water have resulted in tree mortality within the swamp. The District continues to explore a project that would recharge the Floridan aquifer with the excess water within the swamp. This option would benefit both the recovery of the SWIMAL and the hydroperiod of the swamp. The District has contracted with a driller and consultant to construct a test well and evaluate the injection of surface water into the Floridan aquifer in 2018-21.

Additionally, the PRMRWSA has completed construction of three phases of the Regional Integrated Loop System Project. These projects are part of a series of transmission pipelines developed to transfer and deliver water from existing and future alternative supplies to demand centers. This will provide the PRMRWSA's customers in four counties with maximum flexibility to address changing needs and emerging circumstances. Two additional phases, cooperatively funded with the District, are in final design, and will

improve flow capacity and reliability to the City of Punta Gorda, DeSoto County and northern Sarasota County. Future phases are planned for the next 20 years. District funding has helped with three completed phases of the regional loop system.

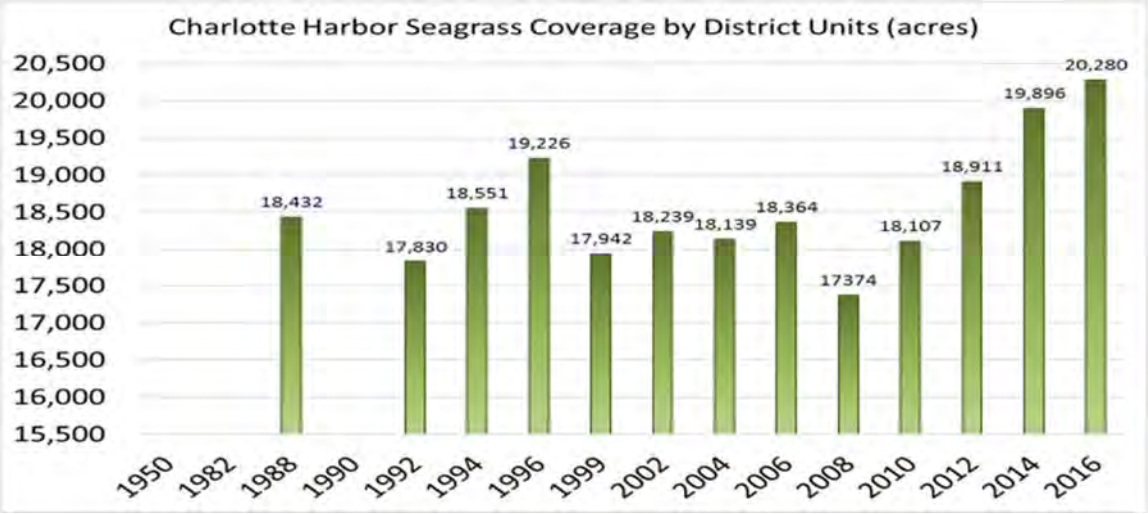
Priority: Improve Charlotte Harbor, Sarasota Bay, Shell/Prairie/Joshua Creeks

Objective: Implement plans and projects for water chemistry, wetlands, critical shoreline and/or submerged habitats in each priority water body

The District continues to work with local governments on projects to assess the conditions of these water bodies and to identify and implement projects to improve water quality and habitat.

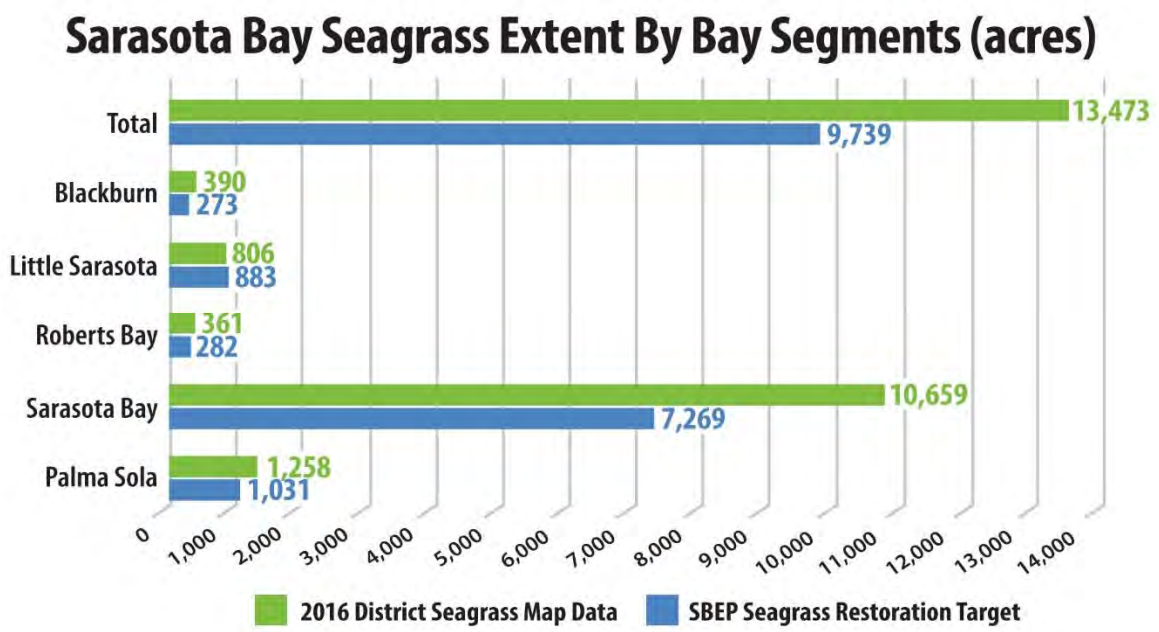
Charlotte Harbor: Charlotte Harbor is generally characterized as having good water quality. The graph below shows the acreage of seagrass over time. Increases in several bay segments have occurred between the 2014 and 2016 mapping efforts.

- Charlotte Harbor seagrass increased by 2% from 2014 to 2016
- Many gains occurred in the Myakka River, Peace River and Cape Haze bay segments
- Lemon Bay seagrass decreased by 2% from 2014 to 2016



Source: SWIM staff, 2017

Sarasota Bay: Sarasota Bay has shown improvements in water quality in recent years, as evidenced by growth in seagrass recovery, an indicator of overall bay health. Data for 2016 (latest available) is compared to the Sarasota Bay Estuary Program's seagrass goals by segments, which shows that the seagrass goals are being met.



Source: SWIM staff, 2017

Shell/Prairie and Joshua Creeks: The Shell, Prairie and Joshua Creeks Reasonable Assurance Plan (SPJCRAP), adopted on February 7, 2012, pursuant to a DEP Secretarial Order, seeks to improve water quality within these watersheds with specific emphasis on total maximum daily load (TMDL) impaired sub-basins. The goal is to consistently meet Class I surface-water quality criteria (F.A.C. 62-302.530) for chloride, specific conductance and total dissolved solids (TDS). The target date for achieving reductions in the identified water quality parameters was 2014.

In April 2016, the District, along with the Shell, Prairie and Joshua Creek Stakeholders Group (SPJCSG), submitted the final performance monitoring report required under the SPJCRAP to DEP. This report documented water quality improvements resulting from regulatory and resource management actions specified in the plan.

Based on the results, the District and the SPJCSG requested that DEP consider delisting TDS and specific conductance for Prairie Creek's water segments within WBID 1962. Continued analysis of historical surface and groundwater quality conditions in the Shell Creek watershed, along with implementation of Best Management Practices, suggest that the surface waters within WBIDs 2040 and 2041 naturally exceed DEP Class I drinking water standards. Although management actions will continue to be implemented in the Shell Creek watershed to address both water quality and quantity issues (Southern Water Use Caution Area Recovery Strategy, SWFWMD, 2015), additional water quality improvements are anticipated to be minimal.

In response to the request submitted by the District and the SPJCSG, DEP delisted Prairie Creek as impaired for TDS and specific conductance. Although the two WBIDs in Shell Creek (2040 and 2041) were not delisted as impaired, the DEP has categorized them as a low priority for TMDL development, due in part to the continuing management actions that will be taken by the stakeholders.

Objective: Develop and update plans and implement natural system projects that restore critical shoreline, coastal upland and intertidal habitats

The District's SWIM program continues restoration activities for Charlotte Harbor and Sarasota Bay. Although there were no habitat restoration projects completed in Charlotte Harbor or Sarasota Bay in fiscal year 2017, there are several ongoing cooperative funding projects in these watersheds as described below.

Coral Creek Ecosystem Restoration: This project helps to improve Charlotte Harbor's water quality. The District completed phase one of this project in FY2014. Phase two consists of hydrologic and habitat restoration of degraded and impacted wetlands on approximately 400 acres and has been advertised to secure a construction contractor. Construction began in the summer of 2017. This phase will include restoration and enhancement of historic and man-made creek channels, removal of invasive vegetation and construction of stormwater features to improve Charlotte Harbor's water quality.

Alligator Creek Habitat Restoration: This District project is to restore hydrology and remove exotic vegetation from approximately 225 acres within the Charlotte Harbor watershed. This project is in its third phase with construction scheduled for completion in 2017.

Robinson Preserve Environmental Restoration: The District is working with Manatee County and other stakeholders on this project. The goal is to restore 150 acres of coastal habitat within Sarasota Bay through non-native vegetation removal, creation of freshwater and intertidal wetlands and upland enhancement.

Objective: Assist local governments with implementation of BMPs to achieve water quality standards

The District uses its local government comprehensive plan amendment review program to communicate development strategies and practices for achieving greater water quality protection. This tool has assisted with the implementation of many District efforts. Examples of strategies communicated include the retention of native vegetation and preference for central sewer use when water bodies are near; incorporation of open spaces in floodprone areas; and use of clustering in more appropriate development areas. Most plan review feedback is provided for consideration and voluntary implementation. The District's review feedback also helps in satisfying provisions in Chapters 373 and 163, Florida Statutes, which require technical assistance for the development of comprehensive plan amendments.

In addition, the District uses its Cooperative Funding Initiative program to help fund BMP implementation. The funding of BMPs is used extensively for watershed management, SWIM and springs initiatives.